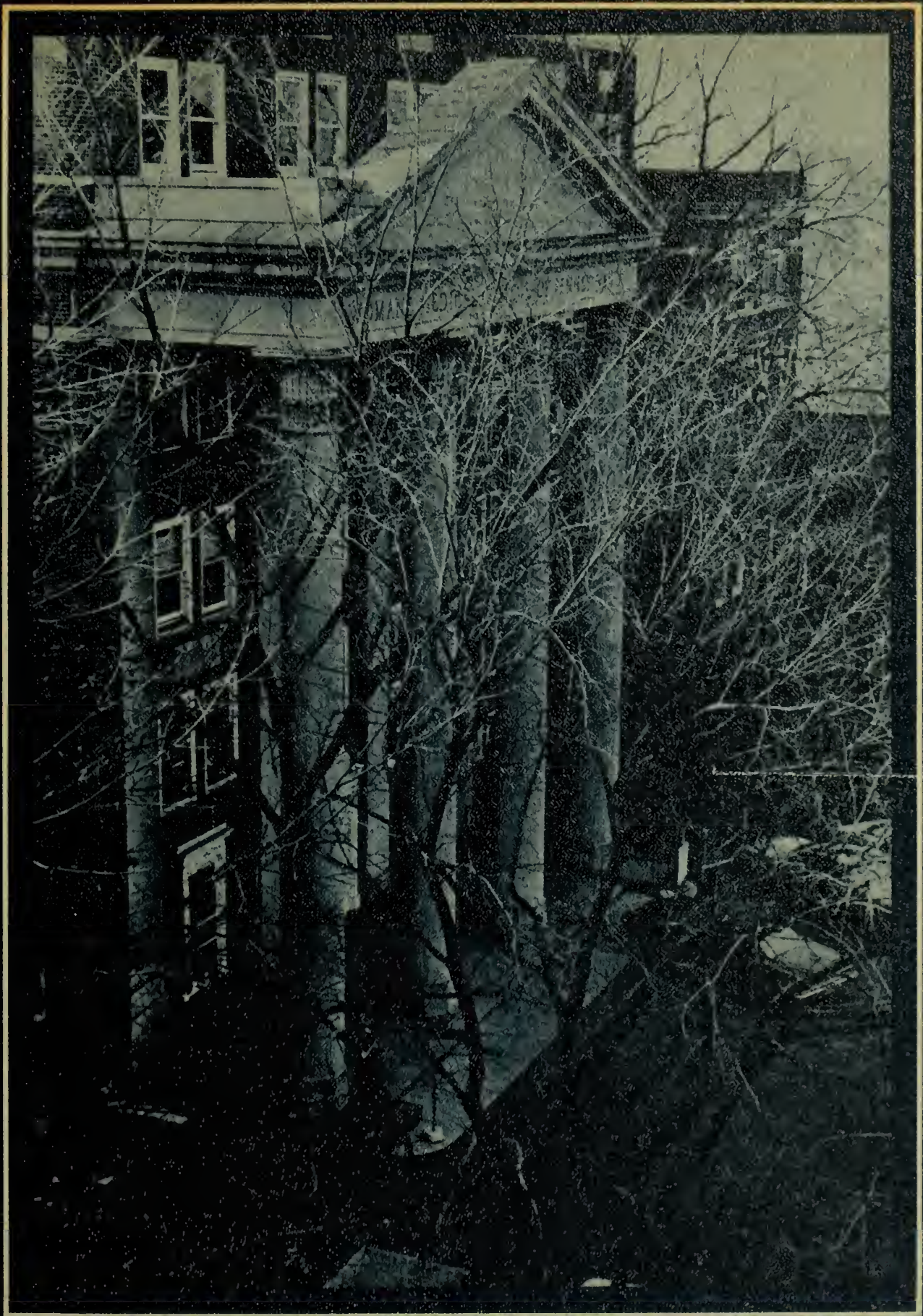






The 1975 Jatrian 1850-1975



Maternity and Main Hospital Building

Main College Building



Laboratory Building





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The 1975 Iatrian

125th Anniversary Edition
The Medical College of Pennsylvania

iatrian. (i-at'-re-an) [Gr. *iatrikos*] pertaining to medicine or to a physician.



1850

1875

1900

U.S. HISTORY

1848 – McCormick's
Mechanical Reaper
1849 – Gold Rush

1859
Oil is
Discovered

1861-65
Civil War,
Emancip. Proclam.
First Thanksg'vg

1869
Golden Spike
Railroad

1876
Bell's
Telephone

1879
Edison's
Elec. Light

1888
Eastman's
Box
Camera

1890
Wounded
Knee
Slaughter

MEDICINE

1840's
First Use
of
Anesthesia

1857 – Pasteur,
Germ Theory
1860 – Pediatrics
1861 – Wired Patella

1867 – Lister and
Clean Surgery
1869 Free tissue
transplants

1877 – Insects
Transmit
Disease
(Yellow Fever)

1881 – Koch
Bacterial
Specificity

1889 – Freud
Psychoanalysis,
1890 – Von Behring
Antitoxin

1895 – Roentgen x-rays
1896 – Babinski's sign
1899 – Boeck's sarcoid

THE COLLEGE

THE
FEMALE
MEDICAL COLLEGE
OF
PENNSYLVANIA

THE
WOMAN'S
MEDICAL COLLEGE
OF
PENNSYLVANIA
AND
WOMAN'S HOSPITAL
DISPENSARY
FOR
WOMEN AND CHILDREN



(Female Medical College of Penna.)

March 11, 1850 Chartered

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1930

1950

1975

1903 Wright Bros. Flight	1914-18 WORLD War I	1920 Woman's Right to Vote, Babe Ruth, Prohibition	1933 Depth of Depression Monopoly Game is Invented	1939 Computers and Nylon	1941-45 WORLD War II	1951 Transconti- nental TV	1960 Man in Space, Beatles, Inter- state Highways, Electric Kitchens	1969 Viet Nam, Moon-Landing Woodstock	1974-76 Watergate, Nixon Resigns, Alaska Pipeline, Bicentennial
1911 - Pavlov conditioning 1913- Schick test 1915 - diphtheria 1916 - IQ test	1920 - Fleming and penicillin, pneumo- enceph, EEG, angio- graph, insulin	1929 - intrinsic factor 1937 - sulfas 1943 - Streptomycin 1940's - radioisotopes	1948 - Kinsey Report, MTX vs. Leukemia 1950 - Steroids	1954 Salk Polio Vaccine; 6MP	1960 - The Pill 1961 - Watson-Crick DNA - vinblastine 1962 - cyclic - AMP	1964 - Epstein - Barr Virus and B. Lymph. 1966 - Rous sarcoma virus	1970's Prosta- glandins and Primary care		

THE
WOMAN'S
MEDICAL COLLEGE
OF PENNSYLVANIA
AND
HOSPITAL

1970

THE
MEDICAL
COLLEGE
OF
PENNSYLVANIA
AND
HOSPITAL



For American Medicine 1840 was a time of quacks, eclectics and homeopaths. Thousands of men were awarded M.D.s by the unapproved and unstandardized medical schools, many never having seen a single patient before their graduation. Most medical schools were proprietary ventures, not university or hospital affiliated, but state-chartered as private businesses. They were opened in rented rooms, had unsalaried lecturers paid by student tickets, were occasionally equipped with a manikin or microscope and eventually opened one-room dispensaries for Saturday morning clinics.

The loosely approved system for medical education had been a seven-year apprenticeship program. By 1840 the system (used by our College for its first 19 years) was for med students to do a two-year physician apprenticeship after completing secondary school, then "sit the college courses" for one or two sessions, the second merely a duplication of the first. Completing their college's graduation requirements, they were awarded M.D. degrees and usually went straight into practice. Wealthy male graduates of the most prestigious U.S. institutions filled the few American teaching "internship" appointments or studied in Europe. There were no Board examinations or licensing procedures for physicians, although New York City midwives had permit requirements from as early as 1738 until the women were forced out of the field by male physicians about 100 years later!

Philadelphia Medicine, the 1850 U.S. pinnacle, had begun its growth in 1732 when both the State House (future U.S. Capitol and now Independence Hall) and the Almshouse were built near Chestnut and Spruce Streets respectively. The Almshouse later moved across the Schuylkill to Blockley Village ("Blockley Almshouse, 1828") becoming the teaching hospital for the University and later "Philadelphia General Hospital." By 1751, Philadelphians Dr. Thomas Bond and Benjamin Franklin opened the first U.S. voluntary hospital, Pennsylvania Hospital, with floors for sick women, men and lunatics. This was a new concept for America: quality medical care in institutions for the sane, delivered by physicians to rich and poor alike!

Then in 1765 a handful of European-educated Philadelphian physicians modelled America's first medical school, the College of Philadelphia, after the academic University of Edinburgh. The college had to close temporarily when three of its faculty members, Drs. Rush, Morgan and Shippen, were called into Washington's Revolutionary Army. Twenty-two years later Penn graduates formed the oldest U.S. institution to promote quality, research and uniformity of medical practices, The College of Physicians of Philadelphia. Almost 200 years later the first woman physician was elected to preside over this body, Dr. Katharine Boucot Sturgis (WMC, 1942).

In 1824 Philadelphia gained a second medical school, America her twelfth. Founded by Dr. McClellan, Thomas Jefferson University was an addition to Philadelphia medical education not welcomed by Penn, who sent a deputation to the legislature in Harrisburg protesting the granting of authority to Jefferson to award M.D. degrees, stating Jefferson was only a branch of an undergraduate college (now Washington and Jefferson U.) and not of graduate caliber. Unruffled by Penn's claims, the legislature granted the charter, their only concern being whether Philadelphia *could* support two medical schools when neither Paris nor London nor New York (who had tried and failed) could. By 1845, Jefferson had the largest enrollment in the country and together with Penn had graduated one-fourth of all M.D.s in the United States.

Between 1840 and 1850 this Philadelphian two-college dynasty fell as seven more medical colleges were founded. Philadelphia was the undisputed medical leader, had more famous professors, the newest treatments, the first subspecialty hospital in the world (Wills Eye), and the sharpest public interest in medicine. In 1842 The Philadelphia College of Medicine (now defunct) was founded on Filbert Street; in 1848 both the Philadelphia County Medical Society and the Homeopathic Medical College (now Hahnemann) were founded.

By 1850 Homeopathic needed more space and moved to the Filbert Street address of the already-defunct Phila. Medical College. Their vacated Arch Street quarters were quickly subleased and remodelled by Dr. Mullen for the new Female Medical College. This sort of rapid turnover typified the era's proprietary school instability and helps explain why the older and established Penn and Jefferson had such condescending attitudes toward the fledgling institutions, especially the outrageous woman's college.



The Setting...America in the 1800s...

For 1840 Homebound Women the only contacts with social feminism were public lectures and reading books and magazines. Sarah Josepha Hale's (1837) *Godey's Lady's Book*, published here in Philadelphia, was much like today's *Ladies Home Journal* and included stories, domestic tips, and editorial columns. Through the latter Miss Hale raised money to build the Washington Monument, established Thanksgiving as an official holiday, encouraged co-ed higher education, formed a Ladies Medical Missionary Society, and reported on the Humanitarian and Woman's Rights Movements, including the first Woman's Rights Convention in Seneca Falls, 1848. There leaders Elizabeth Cady Stanton, Lucretia Mott, Susan B. Anthony, and Lucy Stone had advocated woman's rights (1) as a human being, (2) to own clothing, (3) to own money, (4) to suffrage as a citizen, (5) to higher education to better herself, and (6) to practice the higher professions of medicine, law and the ministry. Miss Hale elaborated, "Talk about this [medicine] being the appropriate sphere for man, and his alone! With tenfold more plausibility and reason, we say it is the appropriate sphere for woman and hers alone!"

The demand for women doctresses and female medical colleges was growing. Sylvester Graham (of cracker fame) was spear-heading a campaign against medical quackery, advocating a return to "health and natural foods," sex hygiene, dress reform and physical education for women. Knowledgeable women were needed and wanted as teachers and as doctresses to care for "female problems." Since most male medical colleges refused to accept women, or made rare exceptions every few years to do so, there was a need for the guaranteed number of female positions offered by female medical colleges. The "first generation schools," typified by Dr. Gregory's College of Midwifery in Boston, offered only midwifery courses and were abandoned in favor of full-course M.D. training institutions like The Female Medical College of Pennsylvania (1850) and Boston (1852).

Arguments against women entering medicine were numerous. First was the male belief in inherent male intellectual supremacy. One journal stated doctresses' "brains would not hold up and would get brain fever from studying medicine." An 1848 obstetrics textbook further explained, "She has a head almost too small for intellect but just big enough for love."

Second were those arguments based on man's physical supremacy. Women were described as anemic, poorly resistant and menstruating with an "automatic necessity for one week's bedrest per month;" thus, it would be impossible for her to be as totally committed to medicine as a man. It was thought that woman, innately unfitted for professional work, would only be successful by imitating man, being masculine and more subject to ridicule.

Third was social inertia. Physicians in America had been male, so the idea of "doctresses" seemed laughable at first. Women belonged in the home, guarding the social morality and sacred family structure. By attempting both, they would compromise either their family or professional aspirations. Conservative women spoke against the feminist movement; bitterly the First F.M.C. Announcement stated there were, "absurd arguments of those [women], the exercise of whose mental abilities seldom reach beyond the decorations of the boudoir and toilet, and we find that those who have been deaf to such idle protestations of delicate imbecility, have shed luster on Literature and Sciences..."

Fourth, many male physicians, trained in proprietary schools by virtue of ability to pay and having only pecuniary interests, feared the feminine onslaught of economic competition. A war or physician shortage might have shaded these social prejudices in the cause of "the general interest."

Fifth, some men expressed paternalistic concerns for the women's modesty. Acknowledging that some physicians were a boorish, licentious lot, several 1878 British physicians were quoted in the *Richmond and Louisville Medical Journal* stating they would rather follow their daughters to the grave than subject them to the vulgarity of the surgical benches or dissecting room or the mention, anatomic description or treatment of male genitals. One man's lamenting conclusion was that "the movement for removing English women from their true sphere, the sphere in which they are so strong, beautiful and all-powerful, to the sphere of the operating theatre and the disgusting, coarse, vulgar scenes of the dissecting room, where she is both uncrowned and unsexed, has succeeded. It will be the ruin of the University of London, and a source of disgust and regret to all the true friends and admirers of woman."

Finally, the entrance of women into medicine was perhaps heatedly fought here in America, as compared with the seemingly smoother transition in Continental Europe, because it was supported by a vocal feminist movement that roused equally vocal resistance in both men and women. Change, especially if bitterly and forcefully espoused like a distasteful medicine, will be resisted emotionally, instinctively and unthinkingly.



Mr. Mullen, first president of the College, purchased the unexpired lease of the 2 rooms used by the young homeopathic college in the rear of 227 Arch Street. Here he delivered to the 8 M.D. degree candidates and 32 matriculants for higher learning the opening lecture on October 12, 1850.



Ann Preston graduated in the first class at the age of 38. She was a Chester County Quaker who ran the household for her invalid mother, aged father and six younger brothers. She loved learning, God, and medicine, especially diagnosis. In 1853 she became the first woman professor in a medical school, and in 1866 the first woman dean. She built Woman's Hospital to provide bedside teaching. "Small and fragile of body, but with an indomitable little soul..."

1850

Brave Beginnings...

Our College's beginnings were simple, proud and courageous. Few men were willing to weather the social and professional criticism to support the cause of women in medicine. One who was, William Mullen, the first president, had studied medicine himself at Philadelphia Medical College and worked in a dispensary for the poor. He said, "It occurred to me that woman, having received from her creator the same intellectual constitution as man, has the same right as man to culture and development... that if women were properly educated, some new avenues to useful and honorable employment, in entire harmony with the gentleness and modesty of her sex, might be opened to her." His educated wife agreed; she was one of the first 40 students in our College.

Other early supporters included Thaddeus Stevens, abolitionist; Dr. Bartholomew Fussell, a village doctor in West Grove, Pa., who trained his older sister, niece and best friend's grand-daughter, Ann Preston; and Dr. Joseph S. Longshore, prominent and liberal Philadelphia physician. This earliest champion trained in his office his sister and three sister-in-laws and was the first college professor of obstetrics. The price he paid for helping women to enter medicine was persecution by and ostracism from the Philadelphia Medical Society and all his hospital affiliations.

The College advertised its 1850 Opening Session in the Philadelphia papers and an internationally circulated First Annual Announcement. This latter item recounted Frances Mitchell from England, the first foreign graduate. The Announcement stated the College's purpose and ended: "We desire to throw open to (females) those avenues of Sciences, from which they have so long been excluded, by representing in a full course of lectures the great and wonderful improvements of the age... To accomplish this no expense has been or will be spared."

Since the College had no cadavers or funds for supplies, Dr. Ellwood Harvey embarked on a brave adventure to get the first anatomy manikin. He had seen posted two rewards, a large one by the master and a smaller one by a New York abolitionist, for finding a young black slave girl who had escaped and was hiding in Washington. Determined to get the abolitionist's reward, he hired a horse and carriage in Baltimore, drove to Washington, found the girl, and planned to meet her, dressed as a boy, by the White House for their escape North. When they reached Philadelphia she was guided via the "Underground Railway" to Canada and freedom; Dr. Harvey received the \$300 reward and bought the College's first manikin for anatomy classes.

The announcement also described the student terms. They must have completed their ordinary education to begin; be 21 to graduate; study Medicine for at least 3 years, two under the supervision of a practitioner; attend two full courses of lectures, one of which was at FMC (note: the same lecture series was given for four months each year, beginning in October); pay fees [\$10 to each professor (they had no salaries), a \$5 matriculation fee and a \$15 graduation fee]; write a thesis; pass the examinations; pass a vote of the faculty by means of black and white balls (more than 3 black balls required retaking the exam); and complete the courses of Anatomy and Physiology, Institutes of Medicine and Medical Jurisprudence, Theory and Practice of Medicine, Obstetrics and Diseases of Women and Children, Surgery, Materia Medica and Therapeutics, Chemistry and Clinical Practice.

Hannah Myers Longshore, also in the first class, was sister-in-law of Dr. Joseph Longshore (cofounder of the College and its first Professor of Obstetrics). She had studied under him for 2 years prior to attending lectures. After graduation she was Demonstrator in Anatomy at the College, then studied at Penn Medical University. Her proud husband handwrote a history of the College and a biography of Hannah, the first woman physician to hang out her shingle in the practice of Medicine in Philadelphia.



President Wm. J. Mullen and the six faculty members of the Female Medical College of Pennsylvania, chartered by Act of Assembly in Pennsylvania, March 11, 1850.

1851-1875 ...Opposition



Musical Fund Hall was chosen as the site of the first graduation ceremonies. The Hall still stands today on East Locust Street and has a wealth of history. It served as host for numerous concerts, including two by Jenny Lind in 1850 netting \$19,000, and for the campaign speeches of numerous Presidential candidates, including Abraham Lincoln.

The first Female Medical College graduation ceremonies were to take place December 30, 1851. The outrage of traditional Philadelphian physicians over the granting of the M.D. degree to women was so great that hundreds of male medical students threatened to disrupt the ceremony, heckle President Mullen or perhaps even burn the hall! Fifty police reserves were stationed in the Hall to assist the regulars in maintaining order. In fact, policemen outnumbered the participants who were peered at and pelted with jeers and insults.

Dr. C.N. Pierce, one of the College corporators, described the bitter difficulties: "With two noble exceptions, not an evangelical clergyman could be induced to sit on the platform on [College] occasions; not a medical journal in the land would publish our advertisement, or do other than grossly misrepresent the College; no hospital could admit our students for clinical advantages . . . so intense was the feeling on the part of the profession against the men who were willing to accept professorships in the school or give instruction in medicine to women, that it was with difficulty that good teachers could be obtained . . . with the exception of a few donations from friends, there was not a dollar in the treasury for compensation of professors or illustrations of lectures."

Despite the odds, the first eight women graduates had learned, had passed their exams and written their theses:

Susanna Ellis: "Influence of the Nervous System on the functions of respiration and digestion."
Angenette Hunt: "The True Physician"
Anna Mary Longshore: "Electricity"
Hannah E. Longshore: "Neuralgia"
Frances G. Mitchell: "Chlorosis"
Ann Preston: "General Diagnosis"
Martha A. Sawin: "Anemia"
Phoebe M. Way: "Wounds"

A small group of friends, families and Quaker college supporters, including Woman's Rights leader Lucretia Mott, listened attentively to speaker Longshore and experienced first-hand with the graduates the excitement of their historic venture. The threatened violence had only heightened their sense of import.

Dr. Longshore spoke honestly with the graduates, "We have all been engaged in a new but momentous enterprise. We have labored (hand in hand) against powerful opposing influences . . . This is the most eventful day in the history of your lives, in the history of women . . . society [now] assigns to women an exalted position, one never before conferred upon her by legislative action; it raises her from a state of comparative imbecility and helplessness, to one of personal identity and independence, from subservience to equality . . . They are all, all looking to you, and to your future conduct and success with feelings of the most intense interest . . . Forget that you are women but remember that you are physicians . . . Demonstrate your knowledge by your works."

Dr. Emeline Horton Cleveland (FMC, 1855) won five academic prizes from La Maternité, was the first U.S. woman ovariologist, first Woman's Hospital Chief Resident. She served on both College and Hospital Boards, as Dean (1872-74) after Ann Preston's death and as first Alumnae President (1875) before she died (1878).

Resistance to lady doctresses was fiendishly intricate. Multiple lines of conservative defense formed one barrier which when leaped was replaced by another. If women could get into medical schools, then hospitals would close their clinical facilities to them; if these were opened, internships and residencies were unavailable; if these were obtained, then still there would be no referrals, consultations or admission to medical societies. There were no professional courtesies or privileges for women.

Women waited over 30 years for peaceful acceptance to hospital clinics in the City. President Mullen (1850) had founded a small Lying-In-Asylum in the lecture building and established a tiny adjoining Dispensary for Wednesday and Saturday clinics, but more patients were needed. While Geneva med student Elizabeth Blackwell had been permitted an 1849 summer "clerkship" as a nurse at Blockley, even this opportunity was denied the 1850 FMC students. They would have to provide their own clinical resources.

After her 1851 graduation, Ann Preston planned to build a Woman's Hospital. She became the first woman medical school department Chair (Physiology, 1853) and used her faculty-alumna status to campaign for funds. Her 1858 Hospital Board of Lady Managers (heresy! lady management!) stated her goals: "A woman's hospital is about to be founded in conjunction with the College, which will supply a most needed charity and offer the students of the College opportunity for both clinical and bedside training, as well as give an opportunity for the training of nurses." Equally important, the Woman's Hospital would provide admitting privileges for the faculty and alumnae denied these privileges elsewhere in the City because of their FMC affiliations.

Ann Preston engineered every angle. She encouraged alumna Emeline Cleveland (1855) to attend La Maternité in Paris and return to the new hospital as first Chief Resident and first female surgeon-ovariotomist in Philadelphia. While FMC and other colleges closed for the first year of the Civil War (faculty and students volunteered their services), Ann stumped the Philadelphia, Montgomery and Bucks County countryside for funds.



The new Hospital would be in the country facing Girard College on North College Avenue. The first house was rented (Sept., 1861) for \$300 and accommodated five beds for patients, who paid only for food and lodging. All care, medicines and operations were free. The hospital grew to three adjoining houses and finally to Woman's Hospital and Dispensary building. First floor rooms were rented to the College for teaching. Thus lectures for the 14 upperclassmen and 6 freshmen, patient care, and some student live-in quarters were all under one roof. In 1863, the Hospital became one of America's first three nursing schools when it rented nurses teaching space.

When the College was 15 years old, it gained two forceful women leaders and changed rapidly. In 1865, FMC friend Isaac Barton drafted New York chemist Rachel Bodley to be the first woman to Chair Chemistry in America; the following year Ann Preston became the first woman Dean. During the 1867-68 academic year, the College became The Woman's Medical College, graduated its first Black doctor, Rebecca Cole, gained its first woman Board of Corporators member and received a bequest from Isaac Barton to build a large College Building for teaching next to the Woman's Hospital. The 1868-69 academic year made WMC an innovative W.S. leader in medical education by requiring a progressive three-year graded course of study rather than the old two-years-repeated scheme.

Dean Preston pushed for more clinical experience. By 1869 WMC students were attending the clinics of Wills Eye Hospital, Orthopedic Hospital and Philadelphia Hospital at Blockley. On January 2, 1869, distinguished physician Alfred Stillé (then president of the Phila. Medical Society) welcomed the first forty women students to attend the all-male Penn Blockley lectures:

"Ladies and Gentlemen, I have pleasure in meeting you here today. It is the first time in my medical experience I have had the opportunity of addressing women among the audience of my pupils. We are sometimes shocked at what is novel . . . but in the present instance I must say that . . . I not only have no objection to seeing ladies among a medical audience, but, on the other hand, I welcome them." That course continued its smooth success.

Eleven months later things were not so smooth. Dean Preston received invitations from the Managers of Pennsylvania Hospital for WMC students to attend the Saturday morning general surgery clinics. She and several faculty members with thirty-odd WMC students were stunned by their reception. Senior Sarah Hall wrote, "Women students were given the privilege of attending clinics at Pennsylvania Hospital. It was thought [they] would be of great educational value, and [we] were advised that as many as possible should attend the first one open . . . We were *allowed* to enter by way of the back stairs and were greeted by the men students with hisses, [caterwaulings, mock applause, offensive remarks upon personal appearances] and paper wads. The Professor of Surgery came in and bowed to the men only. More hisses. We retired the same way we entered and, on reaching the outer door, found men students [lining the way] and we, to get out, had to take to the road . . . to the tune of 'The Rogue's March'." Junior Elizabeth Keller added, "on leaving the hospital, we were actually stoned . . ."

The *Evening Bulletin*, Nov. 8, 1869, reported that several hundred male students had participated, "It was an action which deprived every man in that crowd of all claim to the title of gentleman. If these women had given gross offense, if they had indulged in any unwomanly behavior, if they had intruded in violation of the rules, even then there would have been no excuse for such infamous conduct . . . but these ladies had absolute right there; they were admitted by precisely the same authority that admits men, and, more than this, it was right that they should accept the privileges offered them if they wished to do so.

During the last hour missiles of paper, tinfoil, tobacco-quids, etc., were thrown upon the ladies, while some of these men defiled the dresses of the ladies with tobacco-juice."

One week later, Penn and Jefferson physicians released a statement saying that they would no longer participate in the education of "admixed" student groups. Despite Dean Preston's public protests that science should be impersonal and nonsexist, the Hospital Managers offered the old "separate but equal" saw. The male professor then resigned rather than have to teach women. In months, the quality of teaching and clinical material presented in the separate women's clinics fell from inferior to nil, and the women withdrew. Thirteen years ensued before their equal re-admittance to Pennsylvania Hospital in 1882. By then WMC students were welcomed at the Bedford Street Mission (1872), Phila. College of Pharmacy (1875), Eye and Ear Dept. of the Phila. Dispensary (1877), private ward rounds at PGH (1878). Later, students rotated through the German Hospital (Lankenau, 1885) and the Children's Hospital Clinics (1887).

Phase One of "La Resistance," getting women into medical schools, had lasted 26 years. Midwestern male colleges led the way. [Geneva, 1848; U. of Rochester, 1851; Western Reserve, 1852; U. of Michigan (first state university), 1869], followed by women's colleges (Phila., 1850; Boston and N.Y., c. 1852), and finally by the traditional East Coast (Boston U. Homeopathic, 1874). Phase Two, getting student clinical experience, had lasted 34 years (see above). Phase Three, getting university residencies, lasted 35 years.

Early women did postgraduate training only as "nurses." Elizabeth Blackwell, M.D., was a nurse at Blockley and La Maternité; Emily, her younger sister, later received fuller training at La Maternité by dressing as a man. Elizabeth Shattuck (FMC, 1854), a woman of "rare gifts and graces," needed postgrad training to achieve her life's dream as missionary in Asia. After being rejected by Philadelphia hospitals for residency training she accepted the position of "Head Nurse" at Blockley. Three years later she was ready to embark, but her application for mission medicine was rejected because she was unmarried. Dejected, she continued as Head Nurse, caught typhus fever and died.

Other doctresses had to re-enroll as medical students in "regular" medical schools to achieve their professional goals. Hannah Longshore (FMC, 1851) spent her first postgrad year as FMC Anatomy Demonstrator, then became a student again at Penn Medical University for more experience. By 1860, Emeline Cleveland attended La Maternité as a student, no longer a nurse. Mary Putnam Jacobi (FMC, 1864), a genius, writer and teacher, was the first woman admitted to the Ecole de Medecine. Graduating with highest honors (1871), she returned to the States and established the Post Graduate Medical School, New York. Alice Bennett (WMC, 1876) did academic postgrad work at the U. of Penn., becoming their first female Ph.D. recipient (1880) and later the first woman Superintendent of the Norristown State Hospital.

Finally in 1883, the competitive board exams for Blockley residencies were opened to women. Happily applicant Mary Pauline Root (WMC, 1883) clarified our College's stance as a truly competitive institution and not a women's preparatory school for other "regular" medical colleges. Placing sixth of 37 competitors, she became the first woman resident there. Her training enabled her to open the Woman's Hospital and Dispensary in Madres, India. Thus ended Penn and Jefferson undermining of WMC confidence with views that women lacked "intellectual preparation on the part of most candidates" and "clinical opportunities in [their] college curricula."

Limitation of professional privileges and career choices was Phase Four of "La Resistance." Philadelphia medical societies finally admitted women after 38 years (see next page), but career choices today, 125 year later, are still not fully open to women.



Rachel Bodley, Prof. of Chemistry at 34, was member of the N.Y. Academy of Sciences and Dean from 1874-1888. Not an M.D., she stressed academics, substituted prerequisite college preceptorships for doctor apprenticeships, lengthened the academic year to 8 months, broadened the College foreign scope and research emphases and studied the professional progress of the alumnae.

The first woman to "hang out her sign" in Philadelphia (Hannah Longshore, FMC, 1851) had an ultimately lucrative practice. However, landlords didn't recognize her earning potential at the start and refused to rent her office space. Druggists refused to fill her prescriptions, one even ordering her home to "look after her house and darn her husband's stockings." Lady doctresses were risky curiosities; street loungers would gather to watch their offices, but few would enter as patients.

Military, missionary and academic medicine were all closed to women at first. Women M.D.s served in the Civil War as nurses setting up Army field hospitals (Chloe Buckel, FMC, 1858) or dressed as men (Mary Walker). Many women were discouraged by the obstacles and chose instead to teach high school hygiene or nursing. While this was rewarding for some, it was frustrating for many who wanted to practice what they had trained and hoped for.

In 1875 the College celebrated its 25th Anniversary, laid a cornerstone of permanence, and founded its Alumnae Assn. The Hospital and new College buildings, including labs, a museum and classrooms, were side-by-side on N. College and 22nd Aves. The institution had come of age.





Maternity Bldg. (1878) doubled the beds of the Main Building (1874).



Clinic Hall (1883) contained the first surgical amphitheatre and lecture hall for 300.



Brinton Hall (1888) opened to house the YWCA and numerous students.

1876-1900 ...Renowned

Ladies... prejudices are not amenable to reason. Your business is not to war with words but to make good your position "upon the bodies" of your patients by deeds of healings... The question of the success of women as physicians is not an open one. Her success is already a matter *not* of hope or prophecy but of history."

This was the proud message Ann Preston gave the Class of 1858 at their graduation. Sadly, the feelings of optimism were daunted by the archaic attitude of the Phila. County Medical Society who that same year passed a resolution of excommunication for anyone affiliated with the College.

"[We] recommend the members of the regular profession to withhold from the faculties and graduates of the female medical college, all countenance and support, and that they cannot, consistently with sound medical ethics, consult or hold professional medical intercourse with their professors or alumnae."

Because State Medical Society and A.M.A. rolls were open only to those with local memberships, this dictum prevented women from belonging to all societies. Montgomery and Lancaster County Societies (1858 and 1859) opposed the exclusion of women and sent appeals to the State asking for a repeal of the Phila. action. However, the State upheld the Phila. stance because FMC had "irregular" physicians (those not trained by one of the traditional "regular" medical schools) on their faculty. Professor Longshore, an "irregular" who had been a charter faculty member, graciously withdrew so he wouldn't jeopardize the recognition of the remaining faculty or alumnae as physicians. Loyally, his relative Hannah resigned her position as Anatomy Demonstrator.

Seven years later (1866), when the confusion of the Civil War had cleared, Dean Preston again took up the fight. She petitioned the State for a re-evaluation of the obsolete objection about "irregulars." Unfortunately, the 1867 and 1868 Phila. responses remained: "resolved... members (may not) professionally consult with any professors or graduate of a female college."

By May, 1870, sympathetic male physicians helped push harder. Two WMC faculty members, Drs. Hartshorne and Thomas attended the AMA convention but were refused seats because they represented a Woman's College and were excluded nationally because of local exclusion. They appealed to the Ethics Committee who reviewed the national constitution, finding no grounds for dismissal. They stayed.

Philadelphian conservatism was reasserted when Dr. Hartshorne, a joint professor at WMC and U. of Pa., returned from the convention to complete his lecture series on Hygiene. The Penn lecture hall, normally filled with 30 students, had only one. Dr. Hartshorne reminisced, "What's the matter?" I inquired. "Those women," he replied. "Well, I shall deliver my lecture at all events." Soon another and another (came in and sat down) until nine remained through the hour... at my next lecture all came... For a medical man to be connected at that time with WMC required pluck, and, this time very clearly, pluck won."

In 1870, the ice was broken. Dr. Hiram Corson, whose niece was a physician, led the Montgomery Co. Medical Society to initiate a woman, Anna Lukens (WMC, 1870). By 1871, the Pa. Society ordered Philadelphia to rescind their resolution. Unfortunately, the Phila. Society rejected women's applications for 17 more years before Mary Willetts was admitted in 1888. The national A.M.A. had selected their first woman from the Chicago area 12 years earlier.

Subspecialty society memberships came later, partly because women entered those fields later. By 1877, Dr. Albert Smith presented to the Phila. Obstetrics Society papers by two of our earliest subspecialists, Professors Emeline Cleveland and Anna Broomall. It took 15 years for them to get the three-fourths vote for membership in 1892. In 1884, women were admitted to the Neurology and Medical Jurisprudence Societies, and by 1900, after 50 years in practice, women physicians were recognized as professionals in most subspecialties.

Curricular and physical growth between 1875 and 1900 boosted the College's professional image. Dean Bodley added a Maternity Building (1878), doubling the beds to 35! Then Physiology Professor Emily Frances White opened a pharmacologically-oriented physiology lab, an American innovation. Fulfilling the 1880 AMA recommendations for Class A institutions, WMC increased its faculty size, established a separate Chair of Gynaecology, and added an amphitheatre clinic. By 1882-83 Penn men received their first lectures at Blockley by a woman physician, Professor Clara Marshall. WMC built a new Clinic Hall which provided a 300-seat lecture hall and numerous small medical and surgical conference rooms.

After Dean Bodley (honorary M.D., 1879) died, Professor Marshall (WMC, 1875) became Dean in 1888. She established a South Phila. Out-Obstetric Dept. that in 1896 became a maternity hospital, required that senior students personally care for 8 obstetric cases prior to graduation, expanded teaching lab space, renovated the dissecting room (1894), added a Bacteriology lab (1896), and built a new Laboratory Building (1899). The latter housed physical education and therapy facilities and physiology, histology, embryology and pathology lab space, freeing rooms in the College Bldg. for study, a lunchroom, and a hygiene lab and museum.

The 1885 curriculum was a traditional 3-year program. Students described their first "memorization" year of Anatomy, Histology, and Clara Marshall's *Materia Medica* with long pages of pneumonia therapies, 20 drugs for various symptoms, large doses of universal whiskey and ipecac and no knowledge of bacterial specificity. Their second "learning to think" year was mostly Physiology. Their final third year they studied Medicine, Surgery, Practice, Obstetrics and Gynaecology. The latter two departments, taught by Anna Broomall and Hannah Croasdale, were perhaps the most progressive in the country between 1880-90, pioneering in prenatal care. Anna taught, "nothing is so precious as a living baby and a perfectly healthy mother."

Historian Kate Campbell Hurd-Mead (WMC, 1888) described the students then. For the non-Friend students, the prevailing style was a bustle and little bonnet. They rode the Reading R.R. monthly to the morgue, went by Fairmount Ave. horsecart to Blockley and Jefferson clinics, rode the first cable car in the city to Pennsylvania Hospital's surgical clinics, attended third year lectures at the German Hospital (Lankenau) and rounded at Bryn Mawr.

In keeping with city and U.S. standards, entrance exams were established (1887), stiffer admission requirements enforced (cutting enrollment by 2/3rds for 10 years, 1890-1900), medical licensing boards required (1892), and a 4 year curriculum instituted (1893) to provide more chemistry, physiology and bacteriology (1896) labwork. Encouraged by research-oriented Deans Bodley and Marshall, the faculty and alumnae contributed 857 papers to the world's literature by 1900.

Finally respected city-wide, WMC graduates found residencies in the Maternity Hospital, Phila. Lying-In Charity, and Sheltering Arms of Phila. (all 1887); the Hospital Polyclinic and College for Graduates, German Hospital, Norristown Charity, and West Phila. Hospital for Women (all 1890); Methodist Episcopal Hospital and German Children's Dispensary (1892); and Presbyterian - HUP (1893).



ABOVE: Clara Swian (WMC, 1869), first woman medical missionary.

RIGHT: Anna Kugler (WMC, 1879) founded the hospital receiving this patient in Madras, India.





Attending the 1885 tea in Dean Bodley's home were Anandibai Joshee, high caste Indian woman; Kei Okami, first Japanese woman; and Sabat M. Islambooly, from Damascus, Syria.

In the second 25 years, WMC of Pa. became world-renowned. By 1869, Clara Swain, the first of more than 230 WMC medical missionaries, embarked. In India, she cleverly funded the first hospital for women in Asia. The Rajah of Khetri admired her work, asking her to be his palace physician for his women and giving her an elephant of good luck. She did not quit when the palace people considered her unclean or of lowly station; rather, she tactfully placed their medicines on the floor, avoiding personal contact. Through the Rajah she met rich Nawab of Rampore who donated funds for the first woman's hospital in her name (1874).

News spread fast. That year Dean Bodley received many letters saying, "send us the educated doctresses." She encouraged many students to go abroad. By 1879, Anna Kugler (WMC, 1879) was establishing another hospital in India.

The story of "the unusual college" appealed to many cultures. While FMC had welcomed foreign students since the beginning (Mitchell, 1851), there was now a greater surge of foreign exchange. In 1885, Dean Bodley entertained the foreign students in her home. In attendance were Ramabai, an Indian woman; Mrs. Kei Okami, the first woman to leave Japan and study; Susan La Flesch, an American Indian from the Great Plains; Sabot Islambooly, a Syrian from Damascus; and Mrs. Anandibai Joshee.

Mrs. Joshee, the first high caste Mohammedan woman to study, came despite a town meeting called to stop her. She lived with Dean Bodley after losing weight supposedly "from being unaccustomed to cooking and cleaning for herself." Sadly, less than a year into her position as Physician-in-Chief of Females at Albert Edward Hospital, India, she died of the TB she had actually contracted in the USA. Still, more women continued to come from their "less civilized" lands to study, including Gurubai Karmarkar (India, 1892) and Hu King Eng (China, 1894).

The College at 30 years of age began to document its history and achievements. In 1881, Dean Bodley published a study of its graduates. Ann Preston's students (138 women) had graduated in the first 20 classes; the next ten classes doubled the number of graduates (276). Dean Bodley studied these 276 alumnae, receiving responses from 189 (68%). More than 60% had combined general and ob/gyn practices; only 3 (1.6%) were surgeons. More than half were successfully combining marriage and career, only 4% abandon-

ing medicine for family reasons. Their self-employed physician status had certain advantages over that of their 1881 nurse and teacher sisters, who were fired if they married. Most alumnae lived in northern cities and earned an average of \$3,000 per year. One-third were accepted into medical societies.

One student influenced by this historically-oriented era was Kate Campbell Hurd-Mead (WMC, 1888). Over her lifetime she collected a complete library on the history of women in medicine, published *A Short History of the Pioneer Medical Women of America and of a Few of Their Colleagues in England* (1933) and *A History of Women in Medicine* (1938), and was official historian of the American Medical Women's Association (AMWA).

Dean Marshall published the first history of the College (1897). In it she described the WMC alumnae triumphs of the first 50 years, updating her statistics in 1900. For example, in the 8 years since they were required in 1892, all WMC graduates had passed the Pa. State Medical Boards. Following Johns Hopkins standards, Dean Marshall had encouraged the 66 faculty members (half women) to publish; between 1890 and 1900 they produced 498 papers!

By 1900, the 940 graduates lived in 43 states and territories and 19 foreign countries. Dean Marshall listed fully their hospital affiliations, scientific organizations (most were now members), staff appointments and publications. Most graduates were now ob/gyn subspecialists; fewer were in general practice. They were earning as much as \$10,000 to 20,000 a year, most earning more than the 1900 schoolteachers (\$2,000 annually).

Woman's Hospital published their statistics, too. Each year between 1896 and 1900 they provided approximately 20 to 24,000 patient clinic visits and an additional 4,000 home visits annually. There were over 200 hospital births, 100 home births, over 700 in-house operations and about 200 minor operations performed in clinic each year. Thus, by their 50th anniversary the College, alumnae, and Hospital were enjoying documented recognition.

Eighteen other female medical colleges were opened by 1890. One by one they closed. Larger male medical schools in the same cities and states began to accept women in reasonable numbers, making the relative impact of the small women's colleges smaller. The women's colleges hoped for the extra prestige, political clout and potential for reforming medical education that they thought university mergers would provide. Sadly, they gained nothing, instead losing either their individuality or whole existence "for financial reasons." For example, the Illinois Female Medical College had affiliated with a university which gave them no representation and simply decided one day that its students, faculty and alums no longer existed. The women faculty members discovered they were no longer employed when they read the morning paper, never having received notice.

The Woman's Medical College of the New York Infirmary, founded by the Blackwells, was the second last to close (1899). Cornell University had refused to merge with them but had promised to accept women for the first time. Thus, the women's college seemed unnecessary.

Our College, the only women's medical college in the western hemisphere for the succeeding 70 years, continued to exist for several reasons. First, the coed colleges did not provide truly equal education for women, who were often relegated to separate classes or sitting behind screens "for modesty." Even the 1895 pinnacle of medical education, Johns Hopkins, did not allow women students to examine men below the neck.

Second, coed schools quickly levelled their number of female slots to a 5-10% quota, except during world wars when they accepted women for lack of male applicants and in order to remain solvent.

Finally, women needing junior faculty stepping stone positions to reach higher teaching, research or administrative levels found few academic openings in coed institutions. WMC afforded women wider career options and opportunities to publish and do research. Proudly, in her first 50 years, WMC had become both the "first and only" school dedicated to educating women doctors (1850) and the "last and only" (1899 to 1969).



Clara Marshall (WMC, 1875), was Professor of Materia Medica, Dean from 1888 to 1917, author of the first college history (1897).



Kate Campbell Hurd-Mead (WMC, 1888), historian of women in medicine, active in AMWA.

1901-1911 ...Accredited

After the dust of the 50th Anniversary celebration had settled, the College suffered an almost fatal blow. The cooperation between the neighboring College and Woman's Hospital was disintegrating at the same time the Carnegie Foundation and federal government were establishing standards for medical education. The Foundation had investigated colleges across the country noting with dismay "a large majority of all the institutions bearing the name college were really concerned with secondary education."

Their studies of professional schools of law and medicine uncovered even more disarray. Proprietary schools with no standards, teaching by lecture only, no entrance requirements and faculty paid by students' fees had been given the name of, but were not the responsibility of parent universities. Johns Hopkins was the only medical school in the country which actually required a college degree for entrance. Most other schools, like WMC, had entrance examinations.

Fortunately for WMC, two separate unrelated, but WMC-affiliated, hospitals had been erected in 1895. The larger one was the new adjacent main building of the Woman's Hospital (1861). Having separate charters and governing bodies, and having lost the unifying influence of founder Ann Preston (1872), the College and Hospital had diverged more each year. While in the beginning they had been under one roof, the College paying rent to the Hospital, they were now physically separated. The College was still paying annually for the students' "clinical advantages." In several instances, the Hospital Staff hadn't approved of faculty chairmanship choices, so they appointed their own; soon the Faculty and Staff had very few members in common. The "last straws" were the Hospital Staff reluctance to having their patients "subjected" to students, their refusal to admit male patients, and the dismissal of the last College Faculty member from the Staff in the middle of the 1903-04 school year. That was it. They split.

The smaller hospital built in 1895 had been an inspiration of alumna Amy S. Barton (WMC, 1874) to give free care to South Philadelphia slum-dwellers and give WMC students experience in managing both male and female patients. Supported by alumnae contributions, it was chartered "The Hospital and Dispensary of the Alumnae of the WMC." After it was opened in a rented house at 1212 South Third Street it was nicknamed the "Barton Dispensary." When the split with Woman's Hospital occurred, the Dispensary was the only "College Hospital" the College had, and it was too small for a teaching hospital.

Unfortunately the split occurred just before a 1904 Penna. law was passed requiring every medical school to have a teaching hospital under its direct control to maintain a Class A rating. The College was thus forced either to close as an unaccredited school (86 schools in lower categories eventually closed by 1929) or to immediately establish a new hospital and become accredited.

There was a unanimous emergency vote of the Barton Dispensary managers (mostly alumnae) to make it the official "College Hospital;" the College was relieved to be within the letter of the law and continued its scramble to find teaching beds. There was an outpatient obstetric practice at 335 Washington Ave. which they expanded to a maternity hospital. They bought a building across the street (1904) and converted it to the "Pavilion Hospital," and continued to raise funds for a new College Hospital.

By 1907, the basement and first three floors of the new College Hospital were erected under the charter of the Alumnae Hospital and Dispensary. As more funds were raised, they literally "raised the roof" story by story. In 1908 there was enough space to reorganize the nursing school.

By the time of the Flexner Report visit to WMC in March, 1909, there were a total of 125 students in the 4 years using the very adequate College Main Building preclinical facilities, the completed floors of the new hospital, and a disarray of very few teaching beds.



TOP: The new operating Amphitheatre. Picture circa 1910.



ABOVE: The Maternity Ward. 1905-1911.



LEFT: 1894 photo of Russell H. Conwell in the laboratory with students Dranga (1897), Moore (1889), Bowyer (1898), Brickett (1898) and Lathrop (1891).

The Flexner Report, published in 1911, was a report of over 148 medical schools visited over 3 years. Actually, the number of schools had peaked in 1906 at 162, but the incipient classification system discouraged the shakiest 14. It included details of the facilities, resources and methods of instruction. Of the 7 schools seen in Philadelphia, Penn ranked Number One. In summary, the WMC analysis stressed the financial instability but did state that during a 7-year period they had been using the Dispensary and Pavilion Hospitals while raising \$200,000 for the new hospital, the final \$25,000 of which had come from the Carnegie Foundation.

The description of the Laboratory facilities was complimentary: "simply, but intelligently equipped and conscientiously used laboratories are provided for physiology, bacteriology, and pathology, histology and embryology, chemistry, pharmacy and anatomy. There is striking evidence of a genuine effort to do the best possible with limited resources. There is a useful library and a good museum."

Of clinical facilities they could not be so positive: "The school is now building a new hospital, part of which is already in use. This, with a temporary building, accommodates 27 beds. There is, besides, a maternity of 16 beds and an outpatient obstetrical service. Ward work, with assignment of individual cases, is regularly carried on. Supplementary opportunities are provided at several other institutions. There is a fair dispensary service."

Fortunately, the Woman's Medical College was recommended for accreditation despite what seemed to be overwhelming odds. In the May 21, 1910, J.A.M.A. our College was in Class I academically, those schools having less than 10% of State Board exams failures. The Class of 1909 had no failures, which was not true of the Chicago College of Physicians, Rush Medical College, Johns Hopkins, Yale, Harvard, U. of Minnesota or the University of Pennsylvania that year. Humble facilities with top notch results.

The Main College Building as it appeared 1900-1905.





TOP: Bone boxes still used in 1975 bear the 1896 Anatomy fees-for-lost-bones sheet.

ABOVE: The Class of 1913 Basketball team pictured in *The Scalpel*, 1911.

RIGHT: Students Dunning, Blake, Stevens, Franco, Franco, Stevens, McKeon, and more from Classes of 1895 to 1898 in Anatomy Dissecting Lab.



An exciting portion of research for the History of our College was writing to our oldest living alumnae (Classes 1901 to 1908) and receiving their answers. We asked about class size, whether students were married or had children, where they lived, how they travelled and how they were able to finance their education. They described their courses, teachers and career goals.

There were six responses from the 8 classes. The daughter of H. Frances Bartlett Tyson (WMC, 1901) wrote from New Jersey to say that her mother had passed away after many years as a general practitioner but had left many memories as well as wooden examining tables, forceps used by Dr. Allen, handengraved beakers from 1900, and a legacy as the great grand-daughter of the second signer of the Declaration of Independence and first governor of New Hampshire.

Elizabeth Bausman Bricker (WMC, 1903) herself wrote an informative note from Main Street, Lititz, Penna. Rena May Heilman Lindsay (WMC, 1904), still licensed in Pa. and active member of the Allegheny Co. Medical Society and AMA, wrote with much difficulty a long note, using a magnifying glass. She comes from a family of doctors who were written up in the State Medical Journal, has been both a GP and teacher of anatomy and physiology in parochial schools, took "enough postgrad courses to paper a room," and appeared in the 1969 International *Who's Who*. She proudly enumerated her 3 children, 2 adopted children and 10 great-grandchildren. We thank both these ladies for their efforts and memories.

Abbie Mabel O'Keefe (WMC, 1905), from Portsmouth, N.H., remembered many details of her WMC days and friends. She has been a Boston G.P. for 10 years, then the Smith College physician until 1959. Esther Marr Weyl (WMC, 1906) sent details from Philadelphia where she has worked in an office practice of Pediatrics, in the pedi clinic of the controversial turn-of-the-century Woman's Hospital, then in the Medical Clinic at the old Polyclinic Hospital, now a HUP affiliate, and then in the X-ray Clinic at the Old German Hospital, now Lankenau. All of these institutions have been discussed earlier.

Finally, Helen Dobson Denniston (WMC, 1908) wrote from Phoenix, Arizona, that she had enjoyed her WMC years. She trained in Orthopedics at the Univ. of Wisconsin Medical School, becoming the first woman physician on their staff, and founded their student health clinic. Again, we thank all these ladies.

Class size varied yearly from 29 to "the largest ever" of 44 in 1904 and 1905. In all the classes there were married women, some with children, some already widows. On the whole, they were intelligent, capable women, one class having 6 graduates of Vassar and Barnard. There were no dorms at the time, most students boarding in homes in the North College, Ridge Ave. and 21st Street area and either walking or taking trolley cars to classes.

Financing their education was an interesting problem, as always. Costs were about \$2500 total for the 4 years, or \$400 to \$600 per year. Many borrowed funds; for younger classmates a greater proportion of fees were paid by parents. However, many of the students were older, having worked as nurses or teachers and saved. Some students received scholarships. Probably the most unusual form of income was that of one woman in the Class of 1906; she was married and had been doing illegal abortions prior to entering med school. Apparently she wanted an M.D. to aid her other work!

Their 4-year curriculum was not much different from ours in 1975. First year covered anatomy, physiology, embryology, histology, chemistry and toxicology. Second year dealt with pathology, materia medica (pharmacology), bacteriology and some diagnosis. Dr. Tyson (1901) vividly retold how her pharmacology professor, in a coed class conducted in a male institution addressed them all; "Gentlemen (holding up a glass of water), this is the greatest diuretic in the world."

Third year was introduction to clinical medicine, surgery, ob/gyn and pediatrics. In each of these 3 years there was extensive dissection and "surgical anatomy" experience, but no true courses in neurology, psychiatry, dentistry, anesthesiology or other sub-specialty. The senior year included required clinical electives including numerous clinics, house calls and home deliveries, and office practice starting at 8 AM in South Phila. with Dr. A.A. Stern. On their diplomas were the signatures of the 10 Professors, 5 men and 5 women. Among the favorite teachers mentioned were Ella B. Everitt (Gynaecology), Anna Broomall, and Arthur Stevens (Materia Medica, "the quizzes which taught us the most").

Extracurricular activities had been added each year, beginning in 1888 with Physical Education ("wearing felt bloomers, black stockings, and lawn tennis slippers"). The first yearbook, *The Scalpel*, 1911, included faculty and student pictures, a brief college history, student activities, prose and poetry, a class will and prophecy. Organizations included The Students' Assn., the Undergraduate Medical Society, the Y.W.C.A., the student paper *The Esculapian*, Jeanne d'Arc Society, A.E.I. Fraternity, Zeta Phi Fraternity, and basketball teams.

The graduates of the Classes of 1901 to 1911 went into general practice, ob/gyn, mental health, industrial health, mission work (1 to 3 per class), general surgery, and all the subspecialties.

Interestingly, the Seniors of 1911 listed 4 reasons why they had purposefully selected WMC in preference to coed med schools: "(1) The thought of becoming a professional woman and still being a woman, (2) Because of the stimulation of working under women who have attained prominence in the medical world, (3) More attention given to the conditions which women physicians are most frequently called upon to treat, and (4) Because it was a woman's college and stood for the great cause of women."



Students on the stairway of the WMC on North College Ave. about 1904.



Bas relief entitled *The Woman Physician*, sculpted by Clara Hill, was given in 1916 to the College, where it hangs in the hallway now, by Rosalie Slaughter-Morton (WMC, 1897), cofounder of a war relief organization. "Daughter of science, pioneer, thy tenderness hath banished fear, woman and leader in thee blend, physician, surgeon, student, friend."

World War I shrank the College Faculty and student body. Nine teachers left for War service; those left behind doubled their duties and asked retirees to return and help. Students volunteered to serve as nurses. As in the Civil War, women M.D.s were still refused appointments in the Armed Forces, so they either became contract surgeons or formed war relief organizations. Rosalie Slaughter-Morton's (WMC, 1897) American Women's Hospitals were active throughout the war and into peacetime in Europe under Caroline Purnell's (WMC, 1887) directorship. As the "American Friends Service Committee" it expanded to help near East refugees, Russian famines, Japanese rebuilding. In 1975, Alma Dea Morani (WMC, 1931) became head of Women's Hospitals both abroad and in Appalachia. Founder Slaughter-Morton wrote a book describing her own work entitled *A Woman Surgeon*.

At home the flu epidemics of 1918-19 hit hard. The College gymnasium was converted into an infirmary for the sick students, faculty and staff. Wartime venereal disease epidemics necessitated a V.D. ward manned jointly by WMC and Woman's Hospital.



ABOVE: Frieda Baumann (WMC, 1917) as a freshman in 1913. She later became WMC Prof. of Medicine.

Dr. Frieda Baumann (WMC, 1917), now 88, shared her student experiences with us. There were only 17 students in her wartime class, one married and none with children; five did marry later while in practice. Classes were still conducted on the N. College Ave. campus by a now one-third female faculty. The 4-year curriculum was much like ours. Most of her classmates went into general practice, 1 into Social Medicine, 1 into surgery, 1 into mission work, and 3 stayed on as WMC Faculty members. She was an "interne" at the New York Infirmary, then a medical resident at Bellevue and later became Professor of Medicine at WMC.

Her classmate, Martha Logan Bailey (WMC, 1917), described her rural general practice in 1925. She stated that being a GP required "knowledge of (1) how to make a fire to sterilize instruments in a stove with or without draughts, when fuel must be obtained from the great out-o-doors, (2) how to conduct a maternity case in the most scientific manner when the oil in the only lamp in the house gives out and the closest kerosene is at the neighbor's house 2 or 3 miles away, and (3) plastic surgery because the kick has not yet been taken out of the mule." Obviously, Dr. Bailey's good sense of humor aided her practice.

RIGHT: Prof. of Gynaec., Ella B. Everett (WMC, 1891) lectures the classes of 1915 through 1917.



Part of the 75th Anniversary celebration, alumnae (l. to r.) Sara Mu Jin Ching (1921), Miriam Bell (1922), Ruth Carpenter (1922), Rachel Sharp (1921), Alice Fasold (1920, kneeling) and Anna Ruth Winter (1923) re-enacted the bas relief in the 1925 Pageant.

1912-1930 ...Wars and Strikes



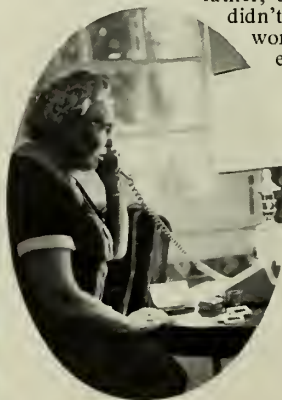
Dean Martha Tracy (WMC, 1904) with Madame Curie on WMC College steps, early 1920s.

After 29 years of bridging the old (she had been in the last class taught by Ann Preston) and the new (she had helped the College change and remain accredited), Dean Marshall retired in 1917. Her successor was Martha Tracy (WMC, 1904), who had graduated with honors from Bryn Mawr, gone to WMC, done graduate study and experimental path research at Cornell (she made Coley's fluid to inject into animals and humans with malignant sarcomas), then returned to WMC as Director of Labs. In 1911, she took a leave of absence (alumnae fellowship) to study physiological chemistry under Dr. Mendel at Yale. By 1913, she was Chairman of Physiological Chemistry at WMC, and in her evening "free time" she worked toward a degree in Public Health at the U. of Penn. Subsequently, she became the Chairman of Preventive Medicine and Dean also. By 1930 she

had started the Student Health Clinic and a Preventive Medicine Course. Today the Martha Tracy outpatient wing houses both Preventive Medicine and Student Health.

In the early 1920s, Dean Tracy invited the brilliant European scientist Madame Curie, who with her husband had discovered radium in 1898, to receive an honorary M.D. from the College. It was an honor to have Madame visit the College while she was in the USA.

Dr. Jean Gowing (WMC, 1926) wrote to describe her student days and the crises which took place in the 1920s. Her 4 years were much like ours, with the exception that Embryology, Hygiene and Materia Medica have been dropped (see the freshman schedule, opposite page). Although the postwar classes were larger again (29 in her class), their numbers were trimmed by the TB outbreak and College turmoil. Several of her classmates boarded in Brinton Hall, the YWCA. One southern student who lived there contracted TB and became very ill. When she was sent home, her father, an M.D. in General Practice, stated she didn't have it and returned her to her coursework. Unfortunately, the whole class was exposed, and one student died.



Jean Gowing (WMC, 1926) today reminisces about her years on the WMC Pediatrics faculty.



ABOVE: Clara Davis, Jean Gowing and Elsie Morris (all WMC, 1926) in the Anatomy Dissecting Lab.

RIGHT: Freshman Year Schedule for 1925-26.

Order of Lectures, Demonstrations, Laboratory Work and Quizzes.

76TH ANNUAL SESSION OF 1925-1926

FIRST YEAR.*

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 10 A.M.	Anatomy Sept. 28 through April 26	Anatomy Sept. 29 through April 27	Anatomy Sept. 30 through April 28	Anatomy Oct. 1 through April 29	Anatomy Oct. 2 through April 30	Chemistry Lab. Section II through Jan. 23
10 to 11 A.M.	Clinical Anatomy	Chemistry Lab. Section II, May 4	Chemistry Lab. Section II, May 5	Chemistry Lab. Section I, May 6	Chemistry Lab. Section I, May 7	Section I, Jan. 30
11 to 12 A.M.						
12 M. to 1 P.M.	Histology Lecture	Chemistry Lecture	Hygiene through April 7	Histology Lecture	Chemistry Quiz	Histology Lecture through Jan. 23
1 to 2 P.M.	Lunch					
2 to 3 P.M.			Chemistry Lab. Section I through Jan. 20		Chemistry Lecture	
3 to 4 P.M.	Histology and Embryology Lab.	Chemistry Lab. Section I through Jan. 19	Sec. II Jan. 27, through Pharmacy Lab. Section II through Jan. 20	Histology and Embryology Lab.	Chemistry Lab. Section II through Jan. 22	
4 to 5 P.M.		Section II Jan. 26 through	Section I, Jan. 27 through April 28		Section I, Jan. 29	
5 to 6 P.M.			Materia Medica and Pharmacy Lecture			

* Subject to change.

Money was tight again. The panic-stricken Board urged WMC to merge with the University of Pennsylvania. Penn, however, answered that WMC would have to give up its identity, and they would give no consideration to current students, faculty or alumnae, or to the "cause of women in medicine." Outraged, the alumnae, faculty and friends unanimously refused and reorganized under the leadership of Chairman of the Board, Mrs. Sarah Logan Wister Starr. They laid plans for the move to Henry Ave., raised funds and applied for the College's first State Appropriation funds.

Soon there was a big problem. All the Board executive committee members were lay business administrators. This was purposeful, based on the belief that all decisions "boiled down to dollars and cents," be they financial, academic or hospital internal affairs. Suddenly there was no more faculty input, even in intradepartmental matters formerly handled only by the independent chairpersons.

Professor Alice Tallant (Johns Hopkins, 1902), voted "Most popular teacher" for several of her 18 years as Professor of Obstetrics, became the center of attention. Her morally and educationally, but not financially, sound policy was to admit patients for delivery regardless of ability to pay. In fact, pregnant State wards from Slayton Farms for Girls in Glen Mills, Pa., were delivered free at WMC. There are no records of what happened, but the lay Board dismissed her without a hearing, without stating their charges and without any professional or academic input.

The war between Administration and Faculty was on! The Faculty found the lack of academic control unacceptable; 26 faculty members, some heads of departments, resigned. The Board would not compromise. Students went on strike, meeting at the YWCA, Zeta Phi or AEI in protest; some transferred away from the "unstable" school. Several Corporators left because they had no patience for "misuse of funds and willed moneys for State ward free care."

Somehow the Board, Faculty and students were reorganized. First Dr. Cahill, then Dr. Ann Gray Taylor (WMC, 1918), became Prof. of Obstetrics. Drs. Kitty Macfarlane and Esther Weyl remained loyal. The reorganization was approved by the Council on Medical Education, new faculty members hired, and the College bounced back to celebrate its 75th anniversary in 1925.

The 25th year was celebrated with a new College building, the 50th with a new Laboratory Building, a new Hospital, an historical pamphlet and the first College History by Dean Marshall. Again, WMC celebrated with a book, *The 75th Anniversary Volume*, and a building, the groundwork for the East Falls College and Hospital.

The book began with "A Retrospect," a short history, by Dean Martha Tracy, the 1925 Commencement program, the 1925 Pageant program and articles by the two-thirds female faculty and alumnae. Dr. Maude Abbott, student of Sir William Osler and founder of Canada's McGill University pathology museum, was WMC Pathology Professor and published her 1924 article on congenital heart disease. Professors of Physiology (Sands, WMC, 1918), Medicine (Goepf), Surgery (Rodman on Mastectomy), Gynaecology (Macfarlane on UTI), Psychiatry (Johnson, WMC, 1905, on Prostitution), Ophthalmology (Buchanon, WMC, 1899), ENT (Butler, WMC, 1894) and other specialties contributed. Finally like Gisela von Poswick's (WMC, 1911) article on radiotherapy for TB, Hodgkins and Sarcoma, many alumnae shared their new found knowledge.

The Woman's Medical College and Hospital new East Falls Site, 1930.



Barton Dispensary and Clinic, Ridge Ave., 1920s.

Fortunately, the new College land and funds were obtained before the 1929 Depression. That year the neighboring Queen Lane homes and reservoir were built. The 11½ acre East Falls site had originally been selected by Alexander Hamilton to be the new Capitol if Philadelphia remained the capital city. However, in 1930, 121 medical students enrolled in a new combined teaching and hospital facility. They walked from nearby homes on the muddy dirt roads. Indian Queen Lane had no buildings; it was just a foot path down the hill to Ridge Avenue, where the upperclassmen attended the Barton Dispensary. Miraculously, as it had done in the past, the College had recovered with new growth within 10 years of a near-fatal crisis.



WAR BEGINS
Poland Invaded; Cities Bombed
End of Conflict

Important—Gasoline Rationing, May 12th and 13th

Atomic Bomb, World's Most Deadly,
Blasts Japan; New Era in Warfare
Is Opened by U. S. Secret Weapon

The War is Over
Japan Surrender

1942 WMC Nursing School bus to the old nurses' residence near Old Market Square in Germantown.



The politics of the business-oriented lay Board of Corporators got the College in even bigger trouble. Their complete power, even over academic decisions, had caused mass resignations and student strikes in the 1920s; in 1935 they still only allowed "joint committees" and lost the college its accreditation. The Council of Medical Education (CME) of the American Assn. of Medical Colleges (AAMC) had taken over the role of standardization and quality control from the Carnegie Commission, Flexner Report Commission and AMA. The first CME survey since the Flexner Report 24 years earlier placed WMC on "probation."

The CME cited three areas in which the college was weak; they would need: (1) full-time faculty heads in basic sciences, (2) a full-time librarian, and (3) full faculty authority over academic affairs. Even a joint committee with lay Board members was unacceptable. The first two points entailed new funding and new manpower; the last item would require new politics.

Mrs. Lucretia Longshore Blankenberg, daughter of Hannah (WMC, 1852), launched the fund drive for salaries. With the help of donations from the Federation of Women's Clubs, WMC hired four new department chairmen and a librarian. Dr. Ben King Harned would chair Pharmacology; Dr. Hartwig Kuhlenbeck, Anatomy; Dr. Marion Fay, Physiochemistry; and Dr. Esther Greisheimer, Physiology. Ida Draeger, the new librarian, combined all the departmental libraries, cataloging books and helping the college library grow for 40 years before her retirement.

With two of the three CME points resolved, and the third "in the works" on paper only (Board changes), the College was restored to its Class A rating within a year.

Women physicians made great strides in the 1930s and 40s. In 1930, 82 years after women entered medicine, the arch-conservative College of Physicians of Philadelphia, the oldest medical academy in America, accepted its first woman, Dr. Catharine (Kitty) Macfarlane (WMC, 1898). Two years later, there were 69 women in the College of Surgeons, one of the first of whom had also been Kitty Mac.

The amazing Catharine Macfarlane studied in the US, Germany and Austria. In 1922 she became the chairman of Gynaecology. By 1938 she received a grant from the AMA Committee of Scientific Research to study the value of periodic pelvic examinations in the diagnosis of, earlier detection and curability of cancer of the uterus. More than 1200 women volunteered for her study and were followed for ten years. The project was an enormous success, a similar N.Y. City study concurring with her results. Early



1931-1949 ...Academic Freedom

detection and treatment did markedly alter the course of the disease.

This pioneering concept in cancer research had never been proved; it has now been generalized to other cancers and is widely accepted. Her clinic was a model for over 250 cancer detection clinics across the country, her name becoming a household word to thousands of women. In addition to being the first woman in both the College of Surgeons and College of Physicians of Phila., she was President of AMWA and member of the Penna. Medical Society Cancer Commission.

Katharine Boucat Sturgis (WMC, 1942) was another pioneer of this era. She contributed to environmental and industrial health concepts, anti-pollution reforms and x-ray screening methods for TB and lung cancer. She has done research on toxic and carcinogenic industrial chemicals, including the vinyl chlorides and their role in hepatic neoplasia.

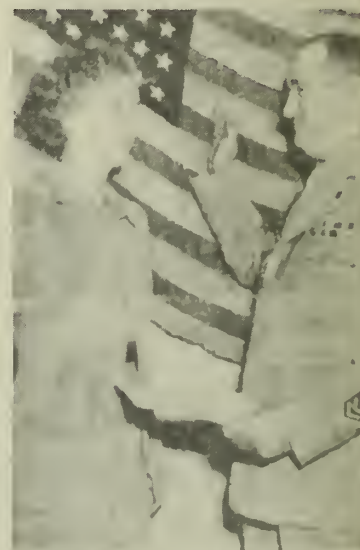
In 1940, Dean Martha Tracy, the pacesetter in Physiology, Preventive Medicine and Public Health who had inspired Dr. Sturgis and others, resigned. The wartime emergency of World War II had called her to serve as Asst. Director of Public Health of Philadelphia. After one of her exhausting nightly civil defense meetings, she developed pneumonia and died at WMC.

The new Dean in 1940 was a brilliant, though controversial, gynaecologist from Johns Hopkins, Margaret Craighill. This forceful woman set up residencies at WMC, appointed a full-time financial officer to compartmentalize financial concerns, and played politics par excellence to force the lay Board out of its stranglehold of absolute power. She purposely requested the AAMC Council of Medical Education to re-examine WMC. As expected, the college was placed on probation a second time because of lay influence on academic affairs. This showdown forced the resignations of Mrs. Starr (chairman) and other Board members.

Dr. Ellen Potter (WMC, 1903), former Director of Medicine in New Jersey State Institutions, became the new College President under the reorganization. She helped to build a Board dedicated to faculty control and academic freedom. The college was immediately, and so far permanently, returned to Class A standing.

American involvement in World War II began in 1941. Two years later, women physicians were impatiently pushing for appointments in the Armed Forces denied them since the Civil War. Finally, AMWA persuaded the President to sign a bill on April 17, 1943, commissioning women doctors in the Army. Only 3 days later, politically active Dean Craighill was commissioned a Major in the Medical Corps, the first woman to be accepted, and was named Director of the Women's Unit. Within hours she had packed and left, not resigning, but leaving Marion Fay, Ph.D., Acting Dean.

Wondering what effect WW II would have on WMC enrollment, Acting Dean Fay predicted a drop due to increased acceptance of women in financially-impaired male schools. Instead, because of a tremendous rise in the total



LEFT: Catharine Macfarlane (WMC, 1898), Chairman of Gynaecology and prominent cancer researcher. In 1948, she laid the cornerstone for Institute for Cancer Research, Jeanes Hospital.

ABOVE: Margaret Craighill (Johns Hopkins) became Dean in 1940. By 1943 she was the first woman physician commissioned in the Army.

number of women wanting to enter medicine, there was a three-fold increase in WMC applicants. The wartime demand for physicians stepped-up program production everywhere; the WMC curriculum was accelerated to 3½ years, omitting senior vacations, and others (including Penn) condensed to 3 years. In addition, Dean Fay began innovative evening refresher courses to encourage physicians to re-enter practice. She urged the Nursing School to join the Student Nursing Corps, which greatly increased the class size.



These 1947 International News Photos for a Philadelphia Inquirer article picture freshmen in Anatomy Lab (left) and sophomores actually compounding their prescriptions for pharmacology (right).

Students of the war years, Selma Kramer (1944), Mary Dratman (1945) and E. Cooper Bell (1947), responded to our inquiries about College life. Their classes varied in size from 21 to 44 depending on illnesses and wartime circumstances. Dr. Kramer stated, "Our class started with 44, but only 12 of the original 44 were in the total of 21 at graduation. Tuberculosis took a dreadful toll. A third of the original class contracted TB; two classmates died. We caught it by doing (not watching) the required sophomore autopsies at PGH. Our class morale was very low and our hostility very high." Fortunately, the class of 1947 reported that although they still had Saturday morning PGH autopsy experience, they were not expected to remain when there was a question of TB exposure.

About 10 percent of the students were married and few had children because one student stated she was asked to leave when she became pregnant. One member of the class of 1945 was a grandmother, and a woman in the class of 1947 had several stepchildren.

The first two years of their curriculum were similar to today's; the third year looked the same on paper but was actually quite different. Their third year was classroom lecture material in the clinical specialties, analogous to our abbreviated lecture series combined with sophomore ICLM. Their junior practical experience was more dissection, the surgical anatomy course. Fourth year, they had clinical courses in medical specialties, outpatient clinic work and rotations to PGH, Roxborough, WMC Infirmary and Dispensary (now extinct) and Woman's Hospital of W. Phila. for deliveries. The latter hospital had split from WMC in 1903, moved to W. Phila., first admitted male patients around 1930, and "merged" with HUP (Penn). Sadly, this merger went the way of all others: Woman's Hospital quickly became a plaque on the HUP wall.

All three doctors agreed that most students lived in nearby homes, apartments or sorority houses (Zeta Phi or AEI). A few lived in the suburbs and commuted by public transportation or carpools. Their professors were mostly women since the young male faculty had been drafted. Tuition, running somewhere near \$700 a year, was paid by family funds, odd jobs, scholarships and post-war loans.

Most of the wartime graduates went into private practice in general practice, internal medicine or ob/gyn. Dr. Kramer, who trained in both adult and child psychiatry and psycho-analysis, is combining her career as Head of Section of Child Psychiatry at E.P.P.I. with marriage and family. She pointed out that fewer of the 1940's graduates went into mission work and more into subspecialties (eg. 2 into psychiatry in her class). Dr. Dratman is another example of the trend to subspecialization. Along with her family interests she pursues a career in academic endocrinology, research and teaching.

Dr. Cooper Bell, who practices internal medicine and is on the MCPH staff, was one of 6 interns, all women and 4 from WMC, at WMCH in 1947-48. She had no salary but free room and board, \$10 per month for "uniform fee," and duty every other night. Interns and nurses resided on the fifth floor of the College Building (now 5-North); the residents slept on the third floor "across from the old library" (where the Pharmacology Office is now), earned small salaries and were seven in number: 1 in medicine, 2 in surgery, 3 in ob/gyn and 1 in pediatrics. Today, the housestaff is over 15 times as large (about 200).

A student lounge was given to the students in 1949 by Parents Assn. funds and Alumnae Assistance. It was in the College building until 1973.

Politically aggressive Dean Craighill shocked the College in 1946. While she was away at war, a few board members had secretly communicated to her their fears that the student body was shrinking and the College in dire financial trouble (neither of which were fact). Dr. Craighill then secretly arranged for WMC to merge with Jefferson Medical College. Board Chairman Judge Goodrich helped with the plans and, upon her return from war, they called a special April 7, 1946, Board meeting to announce their plans.

The reaction was instantaneous and angry. The uninformed Acting Dean, Hospital Administration and majority of Board members concurred with the *Philadelphia Bulletin* article stating the move was unfair and being handled very poorly.

The faculty, led by Dr. Griscom; alumnae, led by President Jean Gowing; and students unanimously opposed the merger, demanding an open meeting with the Board of Corporators at the Phila. College of Physicians. There on April 10, 1946, Dean Craighill read her merger proposal, stating the College was on the verge of bankruptcy. Board member Margaret Kelly knew the Dean had been out of contact with all college documents on Acting Dean Fay's desk for three years. Dean Craighill was repeatedly challenged by Mrs. Kelly to prove the financial crisis existed. She could not.

Mrs. Kelly moved that WMC continue with separate College plans and growth. Despite a split vote of the Board, the resolution carried. Dean Craighill and Chairman Goodrich resigned immediately.

With new solidarity of purpose, the new College Dean Marion Fay, College President Potter, Board Chairman Kelly, and Chairmen of Gynaecology and Surgery (Pettit and Ferguson, respectively) formed a 1946 Board Centennial Celebration Committee for the forthcoming 1950 event.



The November 13, 1948, *Saturday Evening Post* featured an article "Do Women Make Good Doctors?", all the pictures taken at WMC. ABOVE: Dean Fay and Board member George Austin distribute copies to students Pritt, Lohrman, and Weber. AT RIGHT: are selected ENT, Pediatrics and Surgery photos.

In 1948 the auditorium was remodelled and named for Mary Dern Goodrich; today it has been remodelled again as the Louise B. Kaiser Aud. In 1948 it had modern visual aids provided by Board member Goldman (of theatre fame) and was a lunchroom for students and staff.



1950-1959 ...Centennial



AT LEFT: President Louise Pearce in 1950 stands beside portrait of 1850 President William Mullen. AT RIGHT: Dean Marion Fay is presented a Centennial flag to fly above the college during the festivities.



This display in the Lobby showed highlights of College history during the "Pennsylvania Week celebration," October, 1948. Included were newspaper articles and both Life Magazine and Newsweek College stories.

In 1950, culminating four years of planning, the College celebrated its Centennial with publications and building. Displays about WMC history were placed throughout the College; articles were written about women in medicine, featuring the College; Gulielma Fell Alsop (WMC, 1908) published *The History of the Woman's Medical College, 1850 to 1950*; and the College was building and growing in the post-war economy.

The kick-off Centennial Celebration Dinner excitingly typified the times. America was paranoid about Communism; Senator McCarthy stirred the nation with his lists and anti-Communist exposes. The College had selected as speaker for the dinner a prominent woman professional, Judge Dorothy Kenyon. To everyone's shock and dismay, Judge Kenyon's name appeared on one of Senator McCarthy's lists as a Communist sympathizer only two days before the dinner.

There were mixed reactions. Social-conscious College supporters threatened to withdraw funds if the "Justice Department suspect" was permitted to speak at the College. On the other hand, Public Relations seized the opportunity for publicity and asked McCarthy to come and debate with the Judge. He refused, but to the College's credit, they did welcome Judge Kenyon to speak. Later, the erroneous charges were cleared from her record in Washington.

The second one hundred years of the College were off to quite a controversial start!

WOMAN DOCTOR: Then and Now



The Philadelphia Inquirer Magazine printed a tribute (above) to the 100-year-old College in June, 1950. It featured details about senior students Sullivan, Stavola, Croyle, Kerner and Sved, famous graduates Catharine Macfarlane and Hannah Longshore and details about admissions and curricular standards. It cited statistics that the 1200 actively practicing WMC graduates of at 2100 total in 100 years comprised at least one-sixth of all U.S. women physicians in 1950. There had been 7 applicants for each woman accepted in the Class of 1950.

The college was under new leadership. Dr. Fay was still Dean, but the new President was Dr. Louise Pearce (Johns Hopkins, 1912), former Rockefeller Institute Fellow and tropical diseases researcher. She served until 1951 when the college found its first full-time President, Dr. Burgess Gordon, Professor of Medicine at Jefferson. Later in the 1950s he retired, leaving Dr. Fay temporarily both Dean and President. For all but one year when she was ill and had Dr. Jean Gowing (WMC, 1926) fill in, Dr. Eva Fox (WMC, 1943) was hospital Medical Director.

These leaders planned wisely for the growth of both the medical and nursing schools, and they enlarged the scope of the College by instituting the Master of Science (M.S.) and Doctor of Science (D.Sc.) programs in basic sciences which were approved in 1952. One of the earliest D.Sc. recipients was Dr. Beasley, who is today on the Anatomy faculty and an Assistant Dean.

There was federal pressure to alleviate the doctor crisis by increasing class size beyond 50. This necessitated an extension of the old chemistry lab space beyond its physical limitation for 48. With the help of a federal research grant funding Dr. Phyllis Bott-Richard's Kidney Research lab on glomerular fluid analysis, the new Research Wing was built by 1960, the top floor including Biochemistry lab space.

Two years later the larger 1950-51 freshman class entered the clinical years. Clinical facilities already in use were those of the WMCH and Clinics, the Woman's Hospital in W. Phila., Roxborough and P.G.H., but more teaching beds were needed. Dr. Fay approached the Dean's Committee (city-wide association for the five medical schools) for help. Temple Medical School was brand new, and they were most desperate for teaching space, so the deans decided to split EPPI, across the expressway from WMC, between the Temple and WMC faculties. Groundbreaking was in 1953.

HUP (Penn) attempted to "pull a fast one." Without going through the approved Dean's Committee, they secretly agreed with PGH managers to take over completely the facilities which all 5 medical schools had shared. The irate Dean's Committee adjourned to City Hall, where Mayor Tate had ultimate power over PGH allocations, since it had been the City's almshouse since 1732. He flattened Dr. Ravdin's arguments (aggressive HUP Vice Pres. for Medical Affairs) and kept PGH split evenly five ways.

To increase their private outpatient facilities, WMC raised the Martha Tracy Wing in 1954. It also housed the Dept. of Preventive Medicine, founded by Martha Tracy (WMC, 1904) and chaired by Katharine Boucot Sturgis (WMC, 1942).

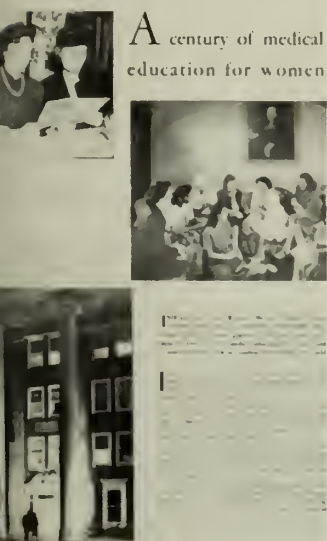
LEFT, BELOW: Grace Kelly and Cary Grant attended fund-raising events and a nursing school celebration during the 1950s. RIGHT, BELOW: Nursing instructors and teachers watch building progress on the new Ann Preston Hall in 1951-52.



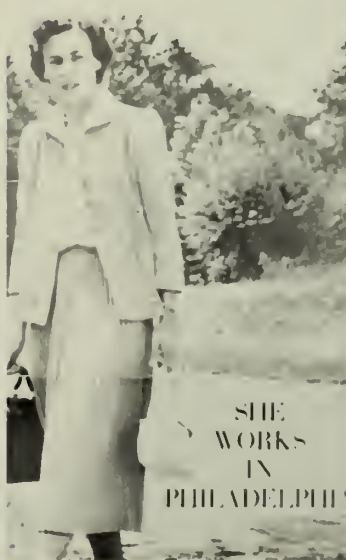
It seemed the Nursing School was always a little orphan tagging along behind the College and Hospital. After the College moved to East Falls in 1930, the nurses lived on the fifth floor of the College (now 5-North) and attended classes in College rooms not scheduled full of medical students. In World War II, to increase patient bedspace, the nurses were forced out to a Germantown residence and had to take a bus back and forth.

Dean Fay launched a fund-raising campaign to build Ann Preston Hall, named for the member of the first WMC medical class (1852) who founded the WMC Nursing School. In 1952, ninety years after the Nursing School was founded as one of the first three in the country, the nurses moved into Ann Preston Hall. It served as a residence for nurses, interns and some medical students and provided teaching space for the historic WMC Nursing School.

The 1954 photo, AT RIGHT shows the Zeta Phi Sorority house, home for many medical students, at 3613 Fox St. BELOW RIGHT: new lab space being added to the Research Wing, early 1960.



Our College's Record:
2,300 Women Doctors



April, 1950, Article appeared in *Independent Woman*, the publication of the Nat'l Federation of Business and Professional Women's Clubs.

New York *Herald Tribune* article June, 1952, stated that discrimination was not yet conquered, that only 76 of the 87 U.S. medical schools accepted women, usually at a 5% "quota." WMC graduated one-sixth of all women MDs each year.

Charm Magazine, September 1953, spotlighted the 84,700 Philadelphian working women, doing an in-depth article on Dr. Anne Pike (WMC, 1946), gynecologist and WMC faculty member.

1960-1969

...Redirection



FROM TOP TO BOTTOM AT LEFT: Academic Procession at EPPI, Oct. 14, 1960, to dedicate the WMC Research Wing; 1960s reconstruction of the second floor corridor to the new Commonwealth Bldg. to provide Medicine Dept. office space and conference rooms; V.A. Hospital is a new affiliate; view of the WMC Building Facade taken from the new Research Wing.

The 1960s were years of renewed social awareness and a reassessment of the College purpose. By 1963, WMC had a new full-time President, Dr. Leymaster, former member of the Council on Medical Education and Hospitals of the AAMC. His orientation was to modernize, to expand numbers and scope and depth. He enlarged the faculty, increased the number of students, residency positions and full-time clinical chairmen, and expanded the clinical and research facilities, including pioneering work in fetal heart monitoring (1965). In 1963, WMC was approved to grant Ph.D. degrees. Through the City Dean's Committee they traded their one-fifth of PGH beds for one-half of the new Veterans Hospital beds. Pursuing out-of-town educational programs, WMC surveyed the Allentown-Bethlehem hospitals and signed a new agreement to affiliate with St. Luke's Hospital in Bethlehem.

Taking a giant leap forward into the "Modern Era", the College launched an \$11.7 million building program and in 1966 conducted cornerstone ceremonies for the Commonwealth Building. This southern extension of the hospital now houses outpatient clinics, operating rooms, cafeteria, radiology and most patient beds (increased from 244 to 400). The up-to-date College and Hospital now had greater clinical depth to offer the community. The Emergency Room (ER) became the third busiest in the City behind PGH and Temple; outpatient services more than doubled; medical admissions increased 17-fold; and the growth is continuing. Consider the following statistics for pre-and post-commonwealth years:

	Fiscal Year 1965	1973
No. of Faculty	267	336
No. of House Staff	35	148
O.P. Clinic Visits	27,000	57,000
ER Visits	14,000	28,000
Medical Admissions	300	5,200

Expansion of clinical opportunities permitted broadened training programs. Medical and nursing school classes enlarged; laboratory and x-ray technician programs were added. In 1968, WMC became the first medical school to retrain inactive physicians in peacetime.

Women's Medical College of Pa. had been the first and last medical college for women in the western hemisphere. The list of "firsts" of WMC graduates was lengthy: first woman medical missionary (Clara Swain, WMC, 1869), first Canadian, Filipino, Indian Brahman and American Indian women physicians, first cancer detection clinic and use of radium for cervical cancer (Catharine Macfarlane, WMC, 1898), first woman doctor in the Regular U.S. Army (Fae Adams, WMC, 1951), first woman M.D. U.S. Navy captain (Gioconda Saraniero, WMC, 1935), first woman Army commanding officer in Viet Nam (Anna Brady, WMC, 1951), first woman member in 1888 (Mary Willets, WMC, 1881) and president in 1968 (Katharine Boucot Sturgis, WMC, 1942) of the Phila. Co. Medical Society, first woman member of the American College of Surgeons (Caroline Purnell, WMC, 1887), and many, many more.

Was a strictly woman's medical college still necessary? This question had been raised and studied before. In 1851, when FMC of Penna. was one year old, it was the only one of 52 medical schools for women only. That year there were only two other medical schools (Geneva and Rochester in N.Y.) accepting one woman student each. Thus, of the 40,755 U.S. physicians, ten (0.02%) were women. Eight of the women (80%) were FMC graduates.

Thirty years later, in 1880, there were 100 medical schools, 18 for women. There were now 82,000 U.S. physicians, 3.5% of whom were women, most graduates of the "female" schools, of the nearly 2400 women doctors, 244 (10%) were living WMC alumnae. In 1881, Dean Rachel Bodley studied the WMC grads to see whether they were happy in their careers and able to combine medicine and marriage, "I remark that the song of domestic life as I have listened with ear attent, has been sung in no minor key. In the melody are a few discordant notes (1 unfavorable influence of medicine on family, 45 favorable), but these are such as a master might throw in to enhance the harmonies of his strain." Although 18 other women's colleges had existed, several folded with financial problems, and male schools were still reluctant to become coed. WMC was still needed. By 1900, almost 5% of all physicians were women, and over 15% of all women had graduated from the more stable WMC.

In 1927, Dean Martha Tracy sent questionnaires to two groups of women physicians who received degrees, those between 1905 and 1910 and those between 1912 and 1921. She discovered that 25% of those graduating between 1905 and 1910 received their degrees from three women's medical schools — in Baltimore, New York and Philadelphia — and 75% in the 160 coed schools whose average quotas for women peaked in 1911 at about 10%. At that time the percentage of women physicians peaked nationally at 6% (6000 of 100,000). Eleven hundred of the women (19%) were WMC alumnae.

The years between 1912 and 1943, when the number of approved schools had fallen to 76 and WMC was the only women's college, the total number of women physicians settled back to a 5.0 to 5.2% of the total yearly. While the coed schools had resumed unspoken but consistent 5% female quotas, WMC steadily produced between 20 and 25% of each year's woman graduates.

During World War II, many of the all male schools became coed to avoid bankruptcy. The relative contribution of WMC to annual new women physician production fell to 15%. By postwar 1953, the 76 of 82 U.S. medical schools who did admit women again lowered their quotas to 5% "with a sense of noblesse oblige" (New York Herald Tribune). Consequently, WMC assumed greater relative impact once again on female education, producing 15-25% of all women doctors. That year WMC had nine applicants for each of its spaces; nationally there were 2 applicants for each class space.

By 1963, each of the 87 medical schools finally admitted women, and the acceptance rates were levelling off for men and women. The 1000 annual women applicants grew quickly to 2000 annually by 1969. That year WMC accepted about 17% of their women applicants and graduated 17% of all new women MDs. Its overall contribution to living female doctors was now falling to 10%.



The Woman's Medical College Of Pennsylvania graduates 3 times as many women physicians as any other college or university, public or private, in the United States of America.

We accept anyone interested in medical education for women to a wide diversity in
Gloria H. Layman, M.D., President and Dean
The Woman's Medical College of Pennsylvania, 3200 Honey Avenue, Philadelphia, Pa. 19129

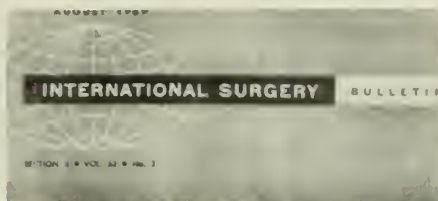


ONCE UPON A TIME
When Women Fought for Equal (Medical) Rights



Once women doctors were as popular as measles

Now We're Clamoring For More



Women's Medical College
Philadelphia, Pennsylvania
See Page 10

TOP LEFT: This Week Magazine of the *Boston Sunday Herald*, March 10, 1963, article was "Women MD's Can Help the Doctor Crisis," by WMC Dean Marion Fay. It stated statistics about admission to medical school and clarified myths about women not being able to combine medicine with marriage, stating that about 25% of each WMC class students were married, another 50% of these being mothers, and 91% all MD mothers active professionals.

TOP RIGHT: In 1967 *Time Magazine* encouraged colleges and universities to advertise free of charge. This was the WMC ad on March 3, 1967.

MIDDLE LEFT: The *Sunday Bulletin Magazine* Sept. 27, 1964, article "When Women Fought for Equal (Medical) Rights" stated that discrimination against women applicants was a thing of the past.

BOTTOM LEFT: Today, *The Philadelphia Inquirer Magazine*, Feb. 26, 1967, "Once Women Doctors were as Popular as Measles, Now We're Clamoring for More of Them," article dealt with the changing attitudes toward women physicians.

BOTTOM RIGHT: The entire issue of the August, 1969, *International Surgery Bulletin* was devoted to the WMC contribution to educating women physicians, currently enrolling 17% of all U.S. women medical students. Soon after this article was published, WMC accepted its first male medical students.

BELOW TOP LEFT: View out of the back of the new Commonwealth Building overlooking the Roosevelt Expressway and Schuylkill Valley.

BELOW RIGHT: Intern Elizabeth Labovitz (WMC, 1963) appears in the 1964 *Iatruan*.

BELOW MIDDLE: Radiologist Eva Fox (WMC, 1943) was a popular faculty member for the Class of 1964.

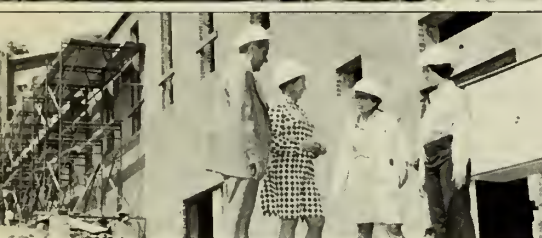
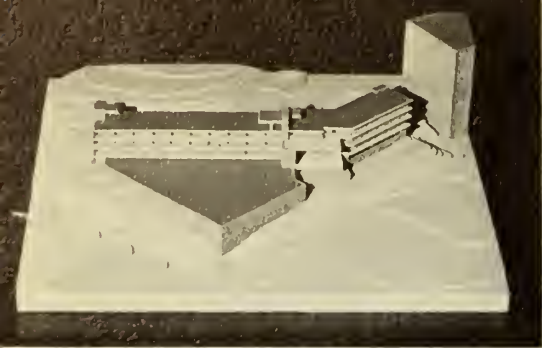
BELOW BOTTOM: Student Health Service, 1964, included Dr. Alice Anderson (WMC, 1946), Dr. Marion Boyd, Elizabeth Lucas and Alice Devlin, RN.



Concern about reverse discrimination against men in admissions policies and Federal and State funding regulations forced the College to re-evaluate its commitment to educating only women doctors. While WMC had been educating men in graduate programs and as residents for years, the Board of Corporators felt it was time for the undergraduate medical school to open its doors to men. Some of the newer faculty members argued that increased acceptance rates for women at other Pennsylvania schools would increase WMC competition for best-qualified women students. Since there was a smaller pool of women than men applicants, it would lower WMC standards unless they accepted men. These two arguments, qualifying for State Aid by serving more Pa. residents (men) and maintaining high quality, were the force to change.

Needless to say, students, alumnae and conservative faculty members fought the move to coeducation vigorously. They believed that the College had a uniquely famous and historic mission, publicized frequently in newspapers and magazines, to provide training opportunities for women in medicine. They feared that coeducation would eventually infringe on the number of positions open to women and would compromise the commitment to women.

All levels of the WMC community contributed to the endless debates over details in the new "Mission Statement," which was designed to appease and unite all the warring camps. The College voted to accept men, but retained the motto: "19th century pioneer... 20th century pacesetter in medical education for women."



1974. Student lounge area for underclassmen.



1974. One of two new lecture halls.

1970s...A New Name and Many Changes

1969. Woman's Medical College of Pennsylvania first admits men as M.D. undergraduates.

1970. The College changes its name to The Medical College of Pennsylvania.

Dr. Bernard Sigel, former Professor of Surgery, becomes Dean.

Dr. Marion Fay becomes Acting President.

MCP has the first medical school emergency heliport in Philadelphia.

1971. MCP has the first A.M.A.-approved residency in Acute Care Medicine in the U.S.

1972. MCP graduates her first four male M.D.s.

MCP enters the open heart surgery arena: first with Dr. Nichols and then Dr. Sarel Ablaza.

Dean Sigel and Assoc. Dean Escovitz expedite new hospital affiliations: St. Luke's Hospital in Bethlehem, Lehigh University (6 year program), Univ. of Penn. School of Dental Medicine, and Frankford Hospital.

MCP establishes innovative programs:

The Learning Center (child care, pediatrics)

Swarthmore Family Practice Rotation

The Covenant House (community health pediatrics)

Phase One of Expansion: Louise B. Kaiser Auditorium.



1911. Clinic



1911. Anatomy



ABOVE. 1972. New affiliations:

BELOW. 1972. First four men receive mel and Sorkin.



Florence A. Moore Library 1972 plans, 1973 construction and 1974 Reception.



in Orthopedics



Dissecting Room



St. Luke's Hospital, Bethlehem.
M.D. degrees: Drs. Ripka, Rose, Schim-



1973. Phase Two of Expansion: New Florence A. Moore Library and Teaching renovations in Ann Preston Hall (\$1.3 million)
Alma Dea Morani Lab of Surgical Immunobiology opens.
MCP graduates her first three male nurses.
More new MCP programs:
Pediatric Nurse Associates in MCP clinic and East Falls Housing Satellite
HAT (Health Advocate Training) for day care at T.L.C.
Part-Time Residency Program is funded
Alcoholism Counselling Training Center
Research Librarian and Computer Terminal for the Medline System
MCP houses the New Center for Women in Medicine, Nina B. Woodside, director.
MCP's last Vital Signs (student newspaper) is published.
Dr. Sbarbaro becomes new Chief of Orthopedics.
Ida Draeger, librarian, retires.

1974. MCP affiliates with the Phila. Psychiatric Center
MCP new subspecialty: Hand Service of Orthopedics, Dr. Didizian
MCP has a new organization: "Wives of MCP Medical Students"
New President Robert Slater, Canadian M.D., and former Dean of Univ. of Vt. College of Med.
MCP has 88 freshmen: 66 women; 17 provisional acceptances for the Class of 1980 from Lehigh; selected from 5099 applicants.

Phase Three of Expansion: \$1.5 million renovations in Main Building: new research and teaching labs; faculty offices in the old library.
1975. MCP is 125 years old; has graduated 3437 MDs, 928 nurses.

President Slater is inaugurated
MCP affiliates with West Park Hospital
Dean Sutnick begins at MCP
MCP selects 93 freshmen: 60 women
Phase Four of Expansion is pending: a 4-story roof top extension of the animal research building for education and research.
Alumnae, students and faculty are concerned about MCP's commitment to women. Is a former motto true?
"19th Century Pioneer... 20th Century Pacesetter in Medical Education for Women."
History section respectfully submitted,

Susan Carleton Benes (MCP, 1975)

Inauguration of the New President, Robert James Slater, January, 1975, at the Bellevue Stratford.





*The Doctor, 1920
Dr. Agnes Hockaday, W.M.C.*

Women in



THE MOST ANCIENT KNOWN PICTORIAL RECORD OF A WOMAN DOCTOR

An Egyptian stela, representing a woman doctor, incantation her patient to Isis, with offerings. The boy has had poliomyelitis. Isis cures him, as we see from the smaller figure at the lower right hand corner. About 3000 B.C.



A Medicine Man Curing a Patient, Christian Schussele, 1851.

The idea that women belong in medicine is not new. In fact, women were the first doctors in primitive societies; the nurturers, planters and healers, the obstetricians, bone-setters and gatherers of medicinal herbs. As priestesses of the gods they were revered, and men were only called upon (see left) for their louder noises, greater strength or their "placebo" effect (incantation of a priest over the dead or dying when the end appears inevitable.) As early as 4000, B.C. the Samaritans carved images of their priestess-physicians carrying the dove of charity in one hand and the torch of midwifery in the other. Fifteen hundred years later the profession had changed drastically; men now ran medicine, demanding exorbitant fees for their services and necessitating spiteful laws, including the Code of Hammurabi which required stiff penalties to the physician (loss of corresponding parts of the body, his life or the lives of his wife and children) for malpractice or unsuccessful outcomes.

By 3000 B.C. in Egypt women dominated society as rulers and physicians (see left) while the men cooked, did weaving or were sent off to fight. There was extensive medical and surgical knowledge in the numerous papyri and medical schools, including the one which later trained Moses and his wife. The woman physicians were salaried, ran free dispensaries, and with the help of prayers to Isis, the goddess of health, they treated everything from abdominal problems to eye and urine disorders, infectious diseases, epilepsy, burns, dropsy, obstetrics or sterility. The current test for sterility was to eat a mixture of watermelon and human milk. If the patient vomited she would bear a child; if only flatus resulted she was pronounced sterile and treated with animal gland extracts and special exercises.

In ancient Greece, Zeus fathered Apollo, the God of Healing, who fathered Asclepius, the Great Physician who carried a caduceus and was deified after his death as God of Medicine. Asclepius had several children, all of whom became doctors. His sons were mentioned only briefly by Homer as healers of battle wounds at Troy, whereas his daughters' names, Hygieia (goddess of health) and Panacea (healer of all ills), remain common words today. In this Pre-Hippocratic era many women physicians were associated with the temples of the cult of Asclepius near mineral waters which served as sanatoria for "days of incubation".

Egyptian Woman Doctor, 3000 B.C., from A History of Women in Medicine, Kate Campbell Hurd-Mead, M.D., The Haddam Press, 1938.



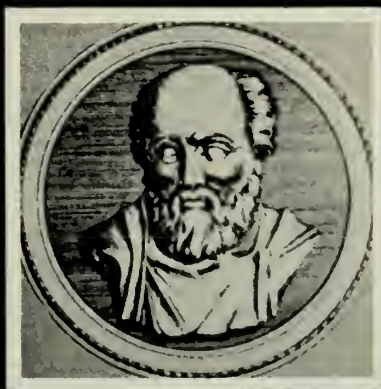
*The Doctor, 1891
Sir Luke Fildes*

Medicine

In Hippocratic times there were learned women who studied medicine (Pythagorus' daughters, Aristotle's wife and co-author with him of an encyclopedia of botany, biology and physiology), but by now most women had been relegated to midwifery. One woman physician of this "Golden Era (for men?)" was Agnodice. She found it necessary to dress as a man to continue to practice among the Greek women unbothered. She was caught, however, and forced to stand trial for "false pretenses". When the women of Athens heard, they rushed to the tribunal, demanding the judges release her, saying, "You are not our husbands but our enemies if you condemn our Agnodice, who saves our lives". The judges released her, granting her permission to dress at will.

The reasons why women physicians were pushed into oblivion at this time are obscure; perhaps the male-dominated Golden Era dictated it as they did the non-citizen and non-represented status for most women. We do know that by the time Corinth fell (146 B.C.) to the Romans, the only difference between the Greek women, all being auctioned as slaves, was that those with medical knowledge brought a higher price and were asked to share their knowledge with the medically-ignorant Romans.

Sadly, it was 1900 years before women re-entered medicine in meaningful numbers. It took another 100 years for them to be secure in a self-image distinct from the traditional male role (see Agnes Hoekaday above in 1920).



Asclepius, Mortal made God of Medicine, Son of Apollo, God of the Healing Art.



Hygieia, Healer and Goddess of Health, Daughter of Asclepius, Sister of Panacea. From the Milton Horn Sculpture above the door of MCP's College Bldg.

Saint Elizabeth of Hungary

13th Century

Elizabeth was born to Hungarian royalty in a palace in 1207. It is said that even as a baby her touch "healed the blind." According to custom, she was betrothed at age 7, wrapped in silk and silver and gold and laid in a golden bed next to the King-to-Be, Louis, aged 11. They lived together in his castle and became friends as they were educated in religion, philosophy, and enough medicine "to treat every kind of distress."

At age 20, after the birth of her fourth child in four years, Elizabeth was left alone while Louis left for the Crusades in the Holy Lands and died in 1227 on his way home. Her little family was confined for awhile in mourning, but eagerly they returned to their castle to continue their work of healing the sick and poor. For her four remaining years of life, Elizabeth and her children daily and devotedly carried dressing, medicines, food and flowers down the long castle hill to her dispensary. The people loved her image, and even after her death at age 24 her body was believed to work miracles.

For centuries, royal women like Elizabeth had carried on the tradition of medicine in Europe. Their love and charity made their hospitals so popular that people would feign leprosy by scarifying and infecting themselves to gain entrance. The enthusiasm for the good work spread to women of all classes, and by the 14th century their leper asylums and dispensaries ringed the world.

Maria Delle Donne

18th Century Physician

Born in 1778 in a poor hill-town near Bologna, Italy, gifted Maria learned quickly, becoming fluent in Latin and Greek and a superb musician. Her uncle recognized her brilliance and arranged for a priest and philosopher to educate her in her strongest subjects: science and medicine. She excelled at comparative anatomy, physiology and experimental physics and wanted to specialize in these; but her tutors and both a famous physicist and pathologist knew of her poverty and suggested she ask for a degree in medicine and surgery, thereby earning a living through her lifeswork. What a challenge! The degree had never before been granted to a woman.

Her public examination began August 1, 1799, in a Bologna church before a great assembly of learned and lay persons. She was self-possessed, wore a modest black gown and veil, and successfully answered



SAINT ELIZABETH IN HER DISPENSARY, 13TH CENTURY.

(From a painting by Murillo.)

questions so difficult that her teachers were lost. She spoke perfect Latin, developed her theses in such an organized and brilliant fashion that on the third day she was asked to give her views on subjects which were still problems to her examiners. She was crowned with laurels and granted the degree amid great enthusiasm, showered with gifts and awarded the university professorship in obstetrics by Napoleon himself. She was rated a member of the French Academy of Sciences, always kept high academic standards for her obstetrics and midwifery students, rich or poor, and was affectionately remembered as the famous "dottressa."

Nurse Florence Nightingale

The usual impression of Florence is that of a saintlike creature whose devotion to the troops in Crimea brought her personal fame and established the value of women in nursing once and for all. But, in fact, she was brilliant, temperamental, powerful over Army and Government leaders and bordered on psychotic several times in her life.

Her parents were part of the 1820 European rich "jet set" social circle, intelligent and close to England's great thinkers and politicians. Her mother spent each of her pregnancies in a different city, naming Florence for hers, and constantly pushed Flo to become a great lady, marry well and be a social splash. Flo was slender, delicately beautiful, had rich thick chestnut hair, but she was obsessed with her differentness, her inability to be normal. Fortunately her father enjoyed her intellectual companionship because no governess was able to withstand her demanding intellect.

At age 16 she received one of 4 "calls from God," wrote of her passion to escape the ineffectual social drudgery and take a vocation. A full 16 years later she had the ego strength to overcome her mother and enter the "degraded" profession of nursing, her old enthusiasm now hammered into a resolute genius to administer nursing and teach the skills.

In 1854, having read of the abominable conditions of the thousands of sick and wounded in Crimea, she wrote to the Secretary of War offering her services, his letter of request crossing hers in the mail. She set out with 38 nurses to care for over 10,000 men, made solitary night rounds with her lamp, stood by the men through surgery and angrily cut through enough red tape to reduce the death rate in her hospitals from 42% to 2% in 6 months.

A great London celebration in adoration of her was planned, but she characteristically avoided it by sneaking off into the countryside. She insisted her success was for her alone, *not* some pioneering venture for womanhood: "I am brutally indifferent to the wrongs or the rights of my sex. I have great horror of (my Crimean project) being made use of after my death by "Womens Missionaries" and those kinds of people."

A compulsive and analytic writer, she continued to contribute to the hospital administration, sanitation and public health literature, to Indian medical missionaries and to the development of nursing institutions until her death.



Florence Nightingale



Elizabeth Blackwell, M.D.

Geneva Medical College, Geneva, New York, 1849. College which granted an M.D. to Elizabeth Blackwell (right), the first American woman doctor.



Born in 1821 to a well-to-do family in England, Elizabeth learned from her 8 siblings reconciliation and patience and from her governesses and masters a passion for reading, discussion, metaphysical and religious thought. Even as a child she had a reverence for all men; in 1830 she and her sibs attended antislavery meetings and gave up sugar as a "slave product." Threatened by cholera outbreaks and sentiments against liberal thinkers, her family emigrated to the U.S. in 1832. After 6 years in Jersey City they set out by canal and stagecoach for Ohio. Months later her businessman father died of bilious fever, so the three eldest children established a day and boarding school for young ladies to support the educations of the younger six.

Elizabeth loved teaching; alone she went to take charge of a girls' school district in western Kentucky. She resigned after only one term, tired of the incessant staring at her white teeth and cultured ways (Ky. was a tobacco state) and upset by the injustices of slavery.

In Ohio she studied music, German and metaphysics, listened to the women's reform ideas (Lucy Stone was her sister-in-law, Harriet Beecher a friend) and to the thoughts of her mother's friend who was dying of a female cancer: "You are fond of study, have health and leisure; why not study medicine? If I could have been treated by a lady doctor, my worst sufferings would have been spared me." In her diary, Elizabeth confessed that this impetus plus her disappointments in love, her repulsion for the only current use of the term "woman physician" (abortionist), and her need for an all-encompassing dedication and passion for some moral cause all made her decision to enter medicine.

She travelled to North Carolina to study the medical books of a minister and former physician there. She performed her first dissection – a squished bug held with a hairpin and cut with a mother-of-pearl handled penknife. Her diary states: "I was pushed onward by an unknown force against my strongest inclinations."

She was rejected by 8 medical colleges before Geneva accepted her in 1847 "as an experiment." The University of Penn. had told her there were already too many men competitors in the field: "one cupping, one blistering, the third giving calomel. There are simply not enough patients to go around, nor new, fashionable

and utterly notorious treatments with which to inveigle them. The profession has small need of women physicians to add to their woes."

Happily she dressed in a conservative black dress and white gloves on her graduation day in 1849. Shyly she and her brother slipped in the side door of the church rather than march in the procession before the hundreds of curious on-lookers gathered to see the first "lady doctress." Her classmates were proud and considerate; one had re-written the Latin diploma in the feminine gender for her. When her name Domina Blackwell was called out, she bowed, accepted the diploma saying, "Sir, I thank you. By the help of the Most High it shall be the effort of my life to shed honor upon your diploma."

She did just that. Because there was no post-graduate training for women in the U.S., she went to LaMaternité in Paris (they failed to honor her diploma) for further training in midwifery and surgery. Tragically she was blinded in one eye with ophthalmia, losing her surgical aspirations but not her conviction to teach and practice. She helped open the New York Infirmary (1854), was the first woman physician on the British Medical Register (1859), established a practice in London (1869), formed the National Health Society for Preventive Medicine (1871), chaired gynaecology in the new Hospital and London School of Medicine for Women (1875), and wrote several small books, one of which, *Counsel to Parents on the Moral Education of their Children – in Relation to Sex* (1878), was so popular it went into 8 printings by 1913.

Her thinking was termed liberal, even sinful, but she replied to a friend: "I think (my ideas) belong to the year 1998 of the future. I feel encouraged in this unique work which is given me to do. Have faith, dear friend; God is ruling, and will not let us be drowned in sin . . ."



Marie Zakrzewska, M.D.

The descendent of a gypsy queen, Marie was born in Prussia in 1829. She dreamed of becoming a doctor and sailed for America with this in mind. Fortunately, at the age of 18 she was accepted into the first class with women students at Western Reserve Medical School in 1847. She graduated shortly after Elizabeth Blackwell and met with both Elizabeth and her younger sister Emily in the New York slums to build the New York Infirmary for Women and Children. Soon they added a nurses' training school, and by 1868, after fund-raising bazaars, lectures and concerts, the Women's Medical College of the New York Infirmary was established and left to the management of Emily. The Infirmary still serves New York and is staffed by women physicians.

By 1856 Marie had moved on to Boston where she met her immigrant sister. They supported themselves and raised enough money to found the Female Medical College and Infirmary in Boston by knitting! They persevered and then demanded clinic space from Harvard and Tufts for students to learn in. Marie became a professor there and her name is still remembered by the men and women students enrolled in what are today known as the Boston University Medical School and Nursing School.

Marie was truly a humanitarian; she never forgot her poorer days. One of her many projects was the establishment of an "eight-cent luncheon" room which was "clean, wholesome and safe for the young ladies" (shop girls) who worked in Boston.



Clara A. Swain, M.D.

Dr. Clara Swain, class of 1869, first woman medical missionary in the world.

The rare pictures below of Mohammedan Purdah women (never seen by other than their husbands' eyes) in Zenana missions were in the personal belongings of Dr. Elizabeth Reifsnnyder, WMC 1881, given to the Woman's Medical College Archives.



1869: Woman Physicians

Our college has the distinction of having contributed the first, as well as the greatest number of, woman medical missionaries to the world. Dr. Marion Fay, Dean Emeritus, has researched the lives of our more than 230 mission alumnae and hopes to share some of her findings in a book in the near future.

The 1850s and 60s were Victorian times. While it was assumed that any respectable woman in the civilized world would remain at home and properly swoon at the mention of any delicate subject, the conditions for women in the uncivilized countries did not permit such frivolous notions. Their barbaric and dangerous surroundings fortunately rattled the social-consciousness of even the most proper ladies in the U.S. and Britain.

For example, the purdah Mohammedan women of India were never permitted outside their homes, lived behind windowless walls, and were never seen by men (after their betrothal at 9 years) other than their husbands and sons. This was particularly tragic at times of illness or childbirth, as they could only be seen and assisted by other women, all of whom were untrained lay midwife-dais. When these conditions were made known to the Queen she encouraged trained nurses, after the example of Florence Nightingale in Crimea in 1854, to become missionaries to India. These nurses, in turn, recognized the need for women doctors and sent back word to England and America.

Simultaneously, these years were marked by growing unrest among the liberal American women who felt pressured by their stifling home-bound non-citizen status, by the need and desire for self-help, health and sanitation education for women and by the growing communication of social-consciousness and enthusiastic organized reform activities (eg. 1848, Elizabeth Cady Stanton). By 1851, Sarah Josepha Hale, editor of the influential new *Godey's Lady's Book* (1850 version of *Ladies Home Journal*), had helped to form the Ladies Medical Missionary Society of Philadelphia. This group eventually had the funds (from her editorial column drives) to send "lady doctresses" to India and other countries.

In 1869, Clara Swain (WMC, 1869) became the first fully qualified woman physician missionary in the world. She went to India where she founded hospitals and nursing schools and trained orphan girls and dais in the skills of nursing, medicine and the compounding of medicines. By 1873 her first group of students were examined by a board of three male doctors and pronounced competent. Dr. Swain, like the other early mis-
sio-



Become Medical Missionaries

naries, was protected at all times, regarded as more precious than gold, and recognized as an essentially irreplaceable source of information and aid.

In the 1870s and 80s each of the American and British churches sent their first lady doctresses, first to India, then elsewhere. Dr. Lucy Combs-Strattmatter, WMC 1873, was the first woman M.D. to go to China; there she established a hospital for women and children which later became the Women's Christian Medical College in Shanghai and was deaned by Dr. Josephine Lawney, WMC 1916. In 1874, Jennie Trout became the first woman physician in Canada and helped establish the Medical School for Women at Kingston, Ontario. Dr. Rosetta Sherwood-Hall, WMC 1889, founded a medical school in Seoul, Korea, and was honored by the Korean emporer for her services there.

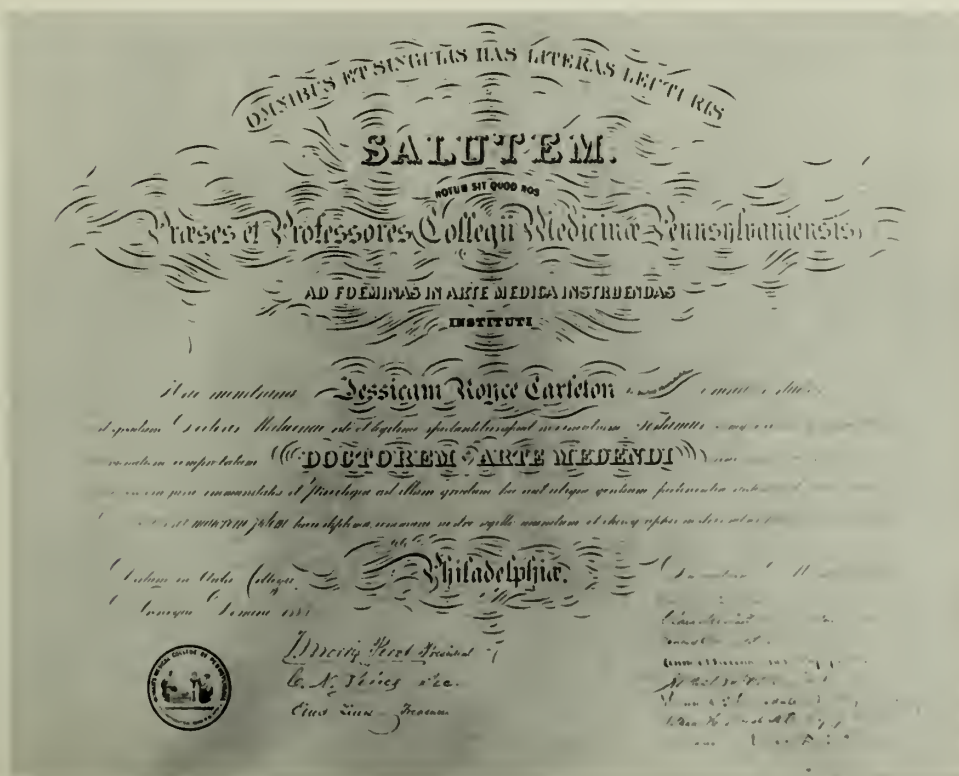
The 1870s also found WMC students who had been raised in areas sorely needing women doctors; they came to WMC to study in order to return as medical missionaries to their homes. Mary Ellis Shipp (WMC, 1878) returned to her Mormon people in the Utah territory, practiced there over 50 years and established a school for nurse midwifery. In 1886 Anandibai Joshi became the first Indian Brahmin woman to receive the M.D. anywhere in the world. Three years later, Keiko Okami (1889), the first Japanese student (male or female) ever to study abroad, received her M.D. Two American Indian women served their tribes in the 1800s: Susan LaFlesche Picotte, WMC 1889, served the Omaha tribe and was the first woman Indian M.D.; Lillie Rosa Minoka-Hill, 1899, practiced among her native Mohawks until her death in 1952.

Closer looks at the life-styles of the missionaries are fascinating. Jessica Royce Carleton, WMC 1886, was born into a medical missionary family in the Punjab of India in 1862. Her father, in addition to preaching, teaching and healing the Indian people there, was innovative in his approach to mission work. He recognized the need for simplicity and to adapt to native ways in order to be accepted, so he and his family (including little Jessica) lived like their followers as nomads on the plains. The family lived on oxcarts and shigsams pulled by slow bullocks and surrounded by the cows, sheep and goats they hoped to build into a preserve. They slept under the stars, cooked by campfires, and in the daylight the children taught the mission children the art of crop cultivation. Jessica returned to the states for her education, went back to India, aged 24, with her M.D. to help establish mission hospitals, medical schools and leper colonies with her brother (also an M.D.). For these works they were each awarded the Kaiser-i-Hind Award. In Balfour and Young's *The Work of Medical Women in India* (1929) Jessica was quoted: "She writes amusingly of the early days - 'old women would come in and sit down and say to one another, "She looks but sixteen years of age, how can I tell her of my symptoms?" - an experience still often met with by the young Indian or English doctors."

Today there are almost 30 women known from WMC and MCP serving as medical missionaries all over the world. Several of us were fortunate to meet Maybel Bruce, 1952, on furlough from her Pakistani Zenana Mission, finishing an obstetrics residency at MCP. We will certainly meet or know more of these dedicated alumnae as they go and return to re-fuel their minds for their great work.



Dr. Susan LaFlesche Picotte
(Omaha) First American Indian woman physician.



Old Latin Diploma of W.M.C. (1886)

Signed by the Professors, including:
Rachel Bodley, M.D., Chemistry and Toxicology
Clara Marshall, M.D., Materia Medica and Therapeutics
Frances Emily White, M.D., Physiology and Hygiene
Anna Broomall, M.D., Obstetrics
James Walker, M.D., Ph.D., Practice of Med.
Neannato Llewadale, M.D., Gynaecology and Dis. of Child
William Parrish, M.D., Anatomy
William Keen, M.D., Surgery



- U.S. Education for Women
- 1700: Self-education or tutoring at home for girls; boys have town schools.
 - 1820: Catherine Beecher establishes the first school for higher education for girls, Hartford, Conn.
 - 1800: Conviction that a democracy requires a literate electorate. The establishment of the free-school system.
 - 1841: Oberlin College, Ohio, the first coed college, grants the first B.A. to a woman.
 - 1850: The Female Medical College of Penna. opens, first all-female college to grant M.D.
 - 1861: Vassar College opens, first all-female college to grant B.A.
 - 1870: 8 State universities open their doors to women. One-ninth college students are female.
 - 1871: Smith College opens.
 - 1879: Radcliffe College opens.
 - 1880: Bryn Mawr College opens.
 - 1920: Women get the vote!



Rules For Woman Professionals—1915
The Westwood Hills California Christian Church bulletin published this contract signed by the women teachers of 1915. The teachers promised:

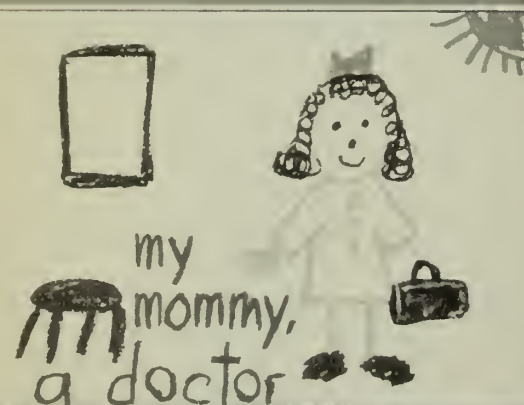
1. Not to get married.
2. Not to keep company with men.
3. To be home between the hours of 8 P.M. and 6 A.M. unless in attendance at a school function.
4. Not to loiter downtown in ice cream stores.
5. Not to leave town at any time without permission of the chairman of the board.
6. Not to smoke cigarettes.
7. Not to get in a carriage or automobile with any man, except her father or brother.
8. Not to dress in bright colors.
9. Not to dye her hair.
10. To wear at least two petticoats.
11. Not to wear dresses more than two inches above her ankle.
12. To keep the school room neat and clean: (a) sweep the floor at least once daily; (b) scrub the floor at least once weekly with hot water and soap; (c) clean the blackboards at least once daily; (d) start the fire at 7 A.M. so the room will be warm by 8 A.M.



Midwives' Law—1738
Doctors (all male) had no laws, licensure or tests; it was 10 years before any men dared to enter obstetrics; A New York law "Regulating Midwives within the City of New York" required:

- (1) Applicants must take the Oath of a Midwife,
- (2) professional conduct,
- (3) Licensure be held before and conducted by high authorities,
- (4) esteem for "Midwives and expert women in that Faculty,"
- (5) swear not to "open any mystery appertaining to your office, in the presence of any Man, unless Necessity . . . constrain You to do so!"

the new physician
OCTOBER 1972



Women faculty + medical students are invited for
WINE + CHEESE
Come to the first of a series of forums on
THE WOMAN PHYSICIAN
with Drs. Bartuska, Klinghoffer,
Labovitz + Woodside
MONDAY JANUARY 27
in the Board Room - 134
Refreshments 5:15
Panel 5:45
Sponsored by - Center for Women in Medicine
ext. 7108





WHAT: A Presentation On The History Of The First And For More Than A Century The Only Women's Medical College on The Eastern Hemisphere.

WHO: Marion Fay, Ph.D.
Dean Emerita

WHY: An Event In Recognition Of The 125th Anniversary of The Medical College of Pennsylvania

WHERE: Wednesday, April 9, 1975 @ 5:15 PM

WHERE: Kaler Auditorium
The Medical College of Pennsylvania
3301 Henry Avenue
Philadelphia, Pennsylvania 19129

An Informal Wine & Cheese Get-Together Will Precede The Presentation

We Look Forward To Seeing You There!
Bring Your Spouse and Friends!

THE CENTER FOR WOMEN IN MEDICINE

CWIM

Center For Women in Medicine

The threefold goals of CWIM, organized in the early 1970s and headed by Dr. Nina Woodside are outlined below and are consistent with the intent of The Medical College of Pennsylvania: "to continue its commitment to the education of women physicians and to develop and maintain programs which will expand the opportunities for women in the medical profession."

The American Medical Women's Association Collection at the Florence A. Moore Library of Medicine of the Medical College of Pennsylvania, Philadelphia, Pennsylvania 19129

To encourage women to enter the profession:

1. Summer premedical programs for women for various female and coed colleges (since 1972).
2. Recruit in high schools.
3. Recruit at college level.
4. Educate counselors about opportunities.
5. Provide role models and information.

To help women stay in medicine:

1. non-sexist teaching material.
2. affirmative action at the student, house staff, faculty and administration levels.
3. role models.
4. wide variety of child care options.
5. flexible schooling, residencies, hours of practice.
6. supportive counseling.
7. reducing medical school time, adding evening classes.
8. information on practice opportunities, quality residencies.
9. research.
10. data-base on women-in-medicine: Archives, History, Library, Museum, to enhance self-image and pride.

To help women get back into medicine:

1. OHRO grant to study retraining methods, desirability, efficacy.
2. MCP retraining programs since 1969.
3. Counseling on all options at left.
4. Expediting re-entry to clinical, pre-clinical, public health, research, pharmaceutical positions. S.C.B.





W.M.C., 1895
Anatomy Lab



W.M.C., 1949
Microbiology

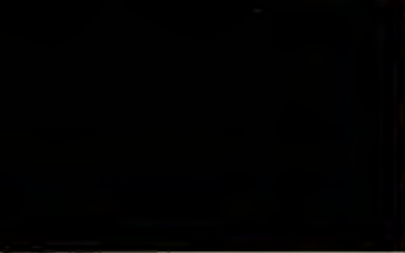


W.M.C., 1945
Anatomy Lab



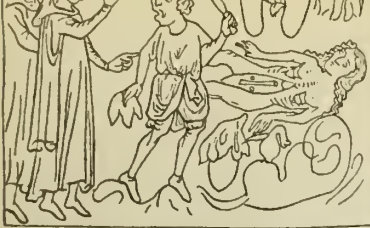
FEMALE ANATOMY IN THE 17TH CENTURY.





W.M.C., 1903
Pharmacology

The Basic Sciences



ABOVE: is one of the earliest known representations of dissection (early 14th century). The operator, who has opened the body of a woman, is being admonished by both a physician and a monk. Medicine at the time was very Hippocratic and dogmatic.

Gross Anatomy

With the fall of Constantinople in 1453 came the Renaissance and the dissemination of both Greek scholars and their knowledge of the original dogmatic Greek medical precepts. Fortunately the related sciences of anatomy and physiology, the foundation of true modern medicine, blossomed in a new approach to learning. Direct observation of dissections was accepted.

Leonardo da Vinci (1452-1519) was the first modern anatomist; he dissected, discovered the maxillary sinus and brain ventricles and made masterful precise anatomical drawings which were not published until rediscovery in recent years.

The famous groundwork of anatomy was then laid by Andreas Vesalius

in 1543 when he published his anatomical works and drawings *De humani corporis fabrica*, based on dissections. He was the professor of surgery and anatomy at Padua and overthrew many of Galen's misconceptions.

By the close of the Renaissance (early 1600s) Columbus and Servetus had described pulmonary circulation; Fallopius the semi-circular canals, several cranial nerves, the facial canals, and the oviducts; and Eustachio had described the thoracic duct, the kidneys, the larynx and the Eustachian tube. Physiologic correlations, however, did not develop until after 1628 when Harvey's doctrine of circulation rattled the traditional medical world.



Andreas Vesalius, 1542 by Jan Stephan von Calgar.



Gross Anatomy Students W.M.C. 1903.

Woman's Medical College of Pennsylvania.

DEPARTMENT OF ANATOMY.

The use of this case, containing illustrative specimens from the *Dissection System*, as follows:

Atlas	value, \$2.10	Patella	value .75
Axis	1.10	Radius	\$1.50
Cervix	.20	Ribs	.50
Coccyx	1.20	Sacrum	1.25
Pubis	3.00	Scapula	2.00
Femur	1.20	Sternum	1.75
Humerus	.75	Tibia	1.25
Ulna	2.00	Vertebra	1.50
Head	.20	Vertebra	.50
Humerus	2.40		
Shoulder	1.50	Two Keys	each .50

may at the discretion of the Professor of Anatomy be granted to two students in Anatomy of the first year, jointly, for the purpose of private study during a single session, up in their deposit with the College the sum of *ten dollars* and signing in agreement to return the case and contents to the College at the close of the session, complete and in good order, paying for any specimens missing or injured, and for any lost keys in accordance with above schedule.

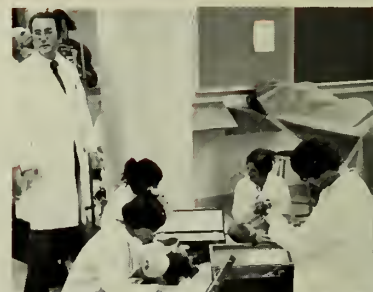
Upon the return of this case as above provided, together with the receipt and eighty per cent. of the deposit money will be returned to the students.

By order of the Professor of Anatomy,

Secretary.

PHILADELPHIA, 1895.

W.M.C., 1895, Bone Box Lids in 1895 bore this schedule of fees for missing bones or keys. Each two students received one box for study after paying a ten dollar deposit.



1973. Dr. Beasley gave his introductory speech about cadavers and bone boxes to the class of 1977 in the new laboratory facilities.

Starting in 1972 Drs. Beasley and Barnes began lectures in the new Kaiser Auditorium.



May, 1973. The class of 1976 selected Dr. Barnes for the Golden Apple. Drs. Mobini and Levine congratulate her.





Neuroanatomy and Neurophysiology

Although Herophilus distinguished between motor and sensory fibres as early as 300 B.C., neuroanatomy didn't grow until the 1600 stimulus to observe anatomy through dissection and utilize the new microscope. Then from the great medical centers at Leiden and Padua came descriptions of the brain's fissures and chemical physiology (Sylvius) and specific knowledge of tongue innervation and the cortical composition of single cells (Malpighi). The 1800s brought the advent of experimentation and the subsequent growth of basic neurophysiologic concepts. For example, in 1823 the French physiologist Marie Flourens demonstrated that removing a pigeon's cerebellum caused loss of coordination and cerebral ablation allowed reflexes to persist, but not thoughts.

The same year that the Female Medical College opened its doors, 1850, the English physiologist Waller demonstrated that nerve degeneration followed sectioning of the nerve and phrased his Law of Degeneration, "a nerve fibre can only survive when it maintains continuity with its cell body." Also 1850 was the year of the description of a neurologic syndrome following hemisection of the cord (Braun-Sequard). Modern neurophysiology began in the 1920s when nerve conduction was postulated to involve both chemical mediators and electrical currents.



Dr. Pubols explains conduction theory in a freshman conference.

W.M.C. 1916. The medical students studied CNS models (center) and prepared slides in the Neuroanatomy laboratory space of the new College Ave. Building.



Microanatomy

Dr. Levine and Dr. Ross help 1974 Freshmen in microanatomy lab.



Drs. Kulangara and Elfin.



Freshmen in 1973 and 1974 use their new microscopes in the new laboratory facilities under the direction of Dr. Ross (Chairman of Anatomy) and embryologist Dr. DiBerardino.



Freshmen in 1961 (facing camera: Inez Jones, Charlotte Blyn, Barbara Nemesh; backs: Hajjar, Brooks, Nassry) study microanatomy with Drs. Bhatti (fellow), Knowlton and Malewitz.





Dr. Ira Gabrielson, a scholarly approach as Chairman of the Dept.

W.M.C. 1945-46. This senior class in Public Health Administration picture appeared in a Look Magazine article about W.M.C. Dr. Morris observes senior O'Connor using U.S. Treasury Dept. posters on hookworms in her discussion.



Dr. Judith Mausner, co-author with W.M.C. grad Anita Bahn of a text on Epidemiology used by MCP students.

Community and Preventive Medicine

Man's interest in death and disease is timeless. Each early civilization had both a handful of careful observers who postulated a contagious nature of disease and those who invoked superstitious or supernatural forces. Thus, even though the ancient Hebrews viewed pestilences as punishments visited by the Lord, the Mosaic code also contained public health regulations, including the isolation of lepers, the disposal of unclean materials, and the avoidance of shellfish and pork as foods. In 1546 Fracastorius presented impressively the theory of direct or indirect spread by seminaria (seeds) of certain diseases, including plague and syphilis, but the 1600s were a time of return to superstition. The time-honored ethical views of Hippocrates and Galen that epidemics were caused by miasmas (poisonous vapors) prevailed among physicians, and the lay population believed that the Royal Touch was the sovereign remedy for scrofula ("King's Evil").

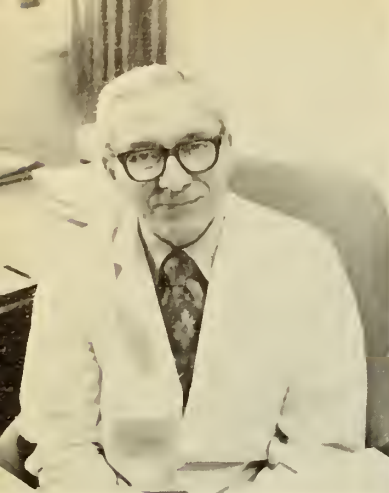
Semmelweis of Vienna and Oliver Wendell Holmes of Boston used epidemiologic thinking about the transmission of disease when they shockingly (for 1840) asserted that obstetricians were responsible for the high incidence of deadly puerperal sepsis on their wards. Apparently in the charity wards, where women were delivered by midwives and medical students who, unlike the attending obstetricians, moved with washed hands from one patient to the next, there was only a fraction of the incidence of puerperal fever. This assertion was denounced of course, but more detailed evidence for indirect communicability came in 1854 from John Snow of London. He traced a localized epidemic of cholera to the now famous Broad Street pump and deduced the fecal-oral route of infection via the water supply.

More exciting pages of Preventive Medicine history tell the stories of Edward Jenner and the smallpox vaccine (1796), Joseph Lister and the precepts of antisepsis in medicine and surgery (1860s), Jonas Salk and the polio vaccine (1954), and the story of the conquest of malaria, killer of millions and many civilizations. Although the discovery of quinine had motivated its ravages, the threat was not prevented. Finally in 1880, Laveran discovered the parasite in human blood and in 1897 Sir Ronald Ross its carrier, the Anopheles mosquito. Thus the disease could be controlled by systematic destruction of the carrier larvae.

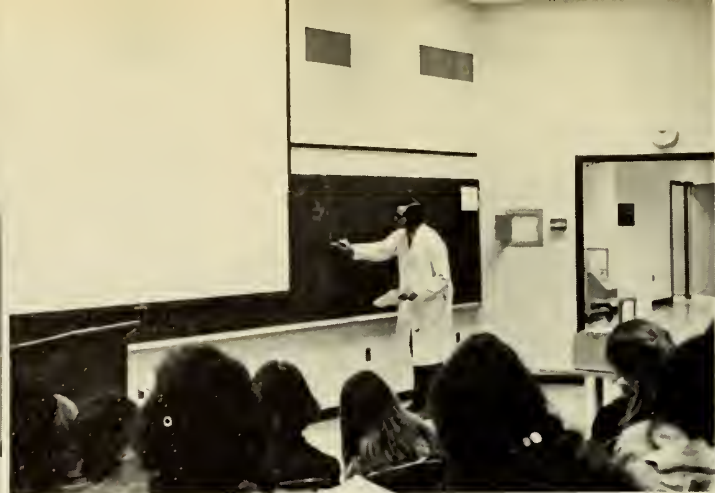
Since 1900 Public Health has been concerned with more than just sanitation and infectious diseases; environmental and industrial health, cancer and cardiovascular disease epidemiology, immunology, mental health and socially-affected diseases all help to fill out the challenge in this field.



Alfred Rethel
Death the Destroyer,
1816-1859



Dr. DeMartinis
Acting Chairman



Dr. Scorpio lectures in the new hall about protein molecular structure.



Dr. Pennock
Biophysics



Dr. Masoro
Former Chairman.

Chemistry was one of the original seven medical school courses at our F.M.C. in 1850. It was taught by Professor Challoner and required 3 books: Turner's Elements, Frowne's U.S. Dispensary, and Christison on Poisons. Obviously, the course was slanted in the direction toxicology and drug therapeutics. It wasn't until the 1880s that Pasteur noted that there were different "pathways" or types of fermentation with either alcohol or lactic acid as end-products.

Biochemistry then became a study of sub-cellular physiology and blossomed in the 1930s. Then complex molecular structures were first described and now the field encompasses enzymatic degradation and synthesis, concepts of mediators and inhibitors, nuclear and ribonucleic transmission of genetic information which may be modified, and membrane physiochemistry and kinetics.

While the 1950s were the years of the steroids, the 1960s boasted DNA and cyclic-AMP, and the 1970s are stretching into prostaglandins and other polypeptide chemistries.



(l.) W.M.C. Freshman class 1932-33 pose with beakers, funnels and condensation tubes in the Chemistry Lab. This lab area was in use until the 1973-74 year.

(r.) The Saturday Evening Post article about W.M.C. in the late 1940s featured Drs. Batt and Marion Fay, the medical students and their Bio-Chemistry experiments.

Physiology class now includes dog labs, inducers, spectrophotometers, etc.

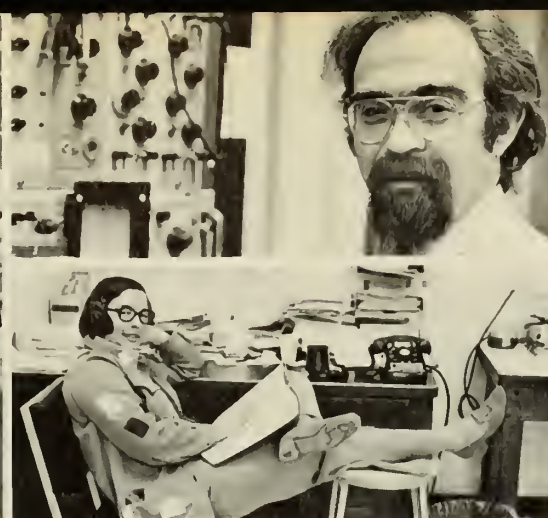




Dr. Berg
Biochemistry



Dr. Goldman
Membrane Chemistry



Dr. Zimmerman, Neurochemistry and Physics
Dr. Bertrand, Biochemistry



Dr. Chacko
Physical Chemistry

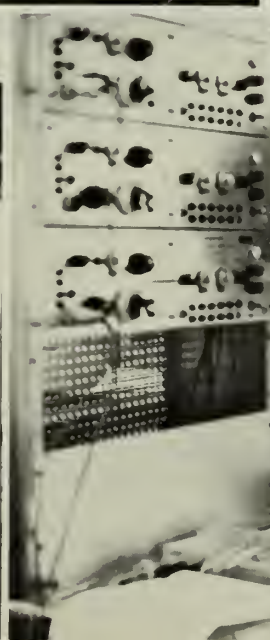
Biochemistry-Physiology



The 1850 FMC Physiology course was a strange combination of hygiene and pathology and promised: "Professor Gleason will illustrate the developments and healthy structure of the various organs as well as the changes produced by diseases, illustrated by paintings, drawings, etc. . . ." The 1846 Act of Incorporation hinted at an even deeper role for Physiology at the College:

"Our object is not merely to qualify females as Practitioners of Medicine, but to teach 'woman to know herself' to understand her organism, and by the knowledge thus obtained, the important relations of wife and mother."

In 1628, when William Harvey published his epochal book, *De motu cordis et sanguinis*, the world was not ready to hear his "blasphemous" physiologic discovery: that there was a circulatory system which he had been able to observe and draw. It was not until 200 years later that Johannes Muller established physiology as a separate medical discipline. He was able to correlate organ and tissue structure (with the help of a microscope) with function.



Microbiology

This 1828 London paper cartoon depicts the social outrage over the recent magnifying glass discovery of microorganisms in the Thames: "monster soup (commonly called Thames Water) being a correct representation of that precious stuff doled out to us."



Thames Water (Monster Soup), 1828, William Heath



We can be proud that in 1900, when there were 150 largely proprietary medical schools in the U.S. requiring only 4 to 6 months of lectures in each of two academic years prior to apprenticeship, our college on N. College Ave. required that much laboratory time be spent at the microscopes above to supplement lecture materials.

Pasteur's experiments used "swan-neck" flasks to disprove the theory of spontaneous generation, to prove in 1857 that different kinds of microbes were the cause rather than a product of alcoholic or lactic fermentation, and to conclude that forms of life not dependent on oxygen exist. In an 1864 Sorbonne lecture he stated:

"I have taken my drop of water from the immensity of creation, and I have taken it full of the elements appropriate to the development of microscopic organisms. And I wait, I watch, I question it! — begging it to recommence for me the beautiful spectacle of the first creation. But it is dumb, dumb since these experiments were begun several years ago; it is dumb because I have kept it sheltered from the only thing man does not know how to produce; from the germs which float in the air, from Life, for Life is a germ and a germ is Life. Never will the doctrine of spontaneous generation recover from the mortal blow of this simple experiment!"



Pasteur in His Laboratory, 1925, Timothy Cole



Dr. Paucker,
Chairman
Virology, Interferon

Dr. Zajac,
Electronmicroscopy

Dr. Ogburn,
Immunobiology

Dr. Gilpin
Research



Dr. Ogburn and student in
the new lecture hall.



Senior students in 1949
prepared wet mounts and
gram stains on their own
cultures.

To account for the rather obvious spread of certain diseases from one person to another, thoughtful men since ancient times postulated the existence of invisible, transmissible agents of infection. In his prescient and rationalistic poem *De Rerum Natura* Lucretius (96-55 B.C.) intuitively recognized both the atomistic nature of matter and the existence of "seeds" of disease.

The epidemiologic evidence for the germ theory of disease was strongly espoused in the 1546 book *De Contagione* by Fracastorius who had analyzed the modes of spread of the plague and syphilis. Unfortunately medicine remained largely dogmatic for yet another 300 years as official bodies such as the Paris faculty prohibited the teachings of such doctrines. Instead they exhibited pompous quackery and defended the views of Hippocrates and Galen, who ascribed epidemics to miasmas, i.e., poisonous vapors, created by the influence of planetary conjunctions or earthly disturbances.

Koch developed a powerful methodology and set of criteria for distinguishing a pathogenic from an adventitious microbe. He had introduced the "Golden Era" of microbiology and between 1879 and 1889 several German school members had isolated the tubercle bacillus, cholera vibrio, typhoid bacillus, diphtheria bacillus, pneumo-, strepto-, staphylo-, meningo-, and gonococci, and the tetanus bacillus.

The science of microbiology actually began with Antony van Leeuwenhoek's letters in the 1677 *Philosophical Transactions of the Royal Society of London*. Although this humble cloth merchant from Delft, Holland, never met these Society members he spent his hobby time grinding lenses and made a total of 200 microscopes as well as many drawings of the bacteria which he was first to see. The following observations on a decayed tooth emphasize the only 1680 criterion for life: motility:

"I took this stuff out of the hollows in the roots and mixed it with clean rainwater, and set it before the magnifying glass so as to see if there were as many living creatures in it as I had aforetime discovered in such material: and I must confess that the whole stuff seemed to me to be alive. But notwithstanding the number of these animalcules was so extra-ordinarily great (though they were so little withal, that 'twould take a thousand million of some of 'em to make up the bulk of a coarse sand-grain, and though several thousands were a-swimming in a quantity of water that was no bigger than a coarse sand-grain is), yet their number appeared even greater than it really was: because the animalcules, with their strong swimming through the water, put many little particles which had no life in them into a like motion, so that many people might well have taken these particles for living creatures, too."



Pathology

The science of pathological anatomy began in 1761 when Giovanni Battista Morgagni produced his masterpiece *De sedibus et causis morborum per anatomiam indagatis* (On the Seats and Causes of Diseases Investigated by Anatomy). The volume contained the careful observations and analyses of 700 cases, uniting anatomy, pathology and clinical medicine, and introduced the concept in disease theory that a "pathological lesion" could be associated with and cause clinical symptoms.

Nearly a century later in the 1830s and 40s Müller classified tumors by their microscopic appearance and Schwann and Schleidin introduced cytology, the science of cellular structures. Finally as 1900 grew near Rudolf Virchow became "The Father of Modern Pathology" by identifying the cell as the center of all pathologic processes.

By 1893 WMC had expanded the curriculum to 4 years as both physiology and pathology were now parts of the foundation of therapeutics.

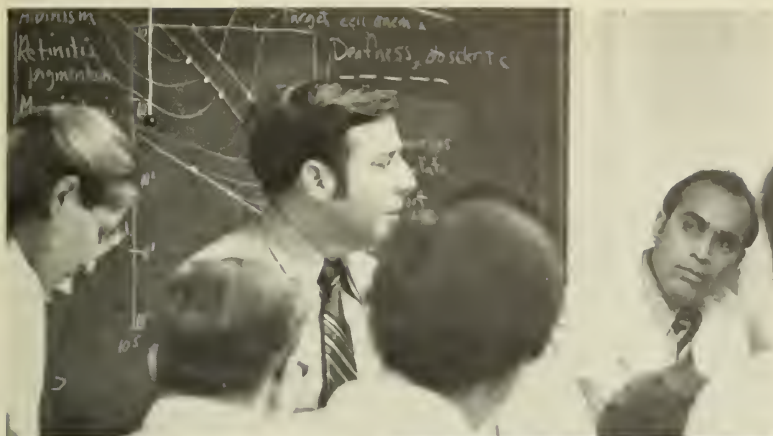
Dr. Leighton, chairman of Pathology and Dr. Sawhill, clinical pathologist; Dr. Ralph Knight, clinical pathology; Dr. Dubin in the new library.

1949. Two junior students stand looking into the pathology museum, now gone.



1940 s Cancer cytology research project. Drs. Pietroluongo, Burgess L. Gordon, I.N. Dubin. Miss Vaskelis (cytology technician) and Dr. Sophie A. Brenner (WMC, 1945).





Dr. Mansukhani and guest pathologist teach sophomores in 1972; Dr. Yu; Bill White, Diener; Pathology Residents.



1973 Skit Nite Faculty Skit included an incense smoked seance with Drs. Sawhill, Dunn, Yu, Knight, Mansukhani, Abaza, and others.



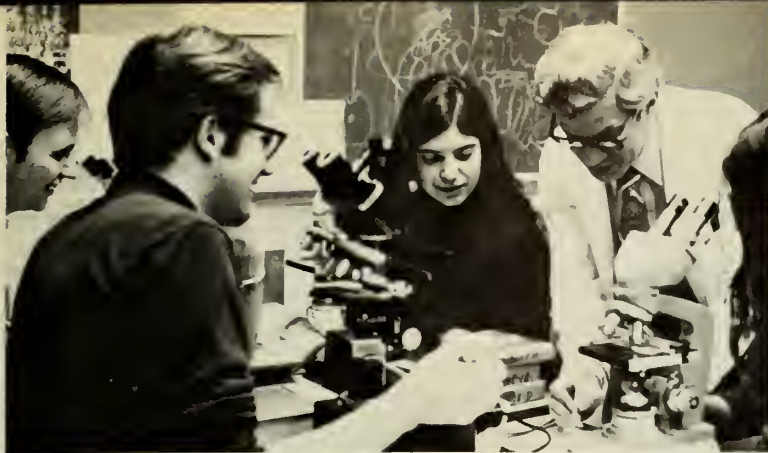
LOGY **PRACTICE EXHUMATION I**

Please circle the correct answer; do not square it — the computer cannot guess the root of squared answers. Some questions may have no all correct answers, some may have all no correct answers. Each is worth only 1 x 10-19 of your final grade; the slope of the curve will not be too steep. You have 15.5748 hours to finish. Good Luck!

1. Inflammatory cells are:
 - a. small leftist organizations mostly penetrated by the C.I.A.
 - b. the results of the work of a prison arsonist.
 - c. are occasions after a store fire upon which damaged merchandise is sold at discount.
2. Cloudy swelling:
 - a. is important for pilots to observe on radar.
 - b. when it occurs intracellularly, has a prognosis for extracellular rain.
 - c. is important to weathermen.
3. The best way to escape pathology is via a:
 - a. mucous raft
 - b. blood vessel
 - c. clinical clerk-ship
4. The first lady of immunology was:
 - a. Anna Phylaxis
 - b. Polly Peptide
 - c. Auntie Jen
 - d. Grandma Globulin
5. The Eaton Agent
 - a. is a British school boy turned actors' representative
 - b. refers to a cannibalized spy
 - c. refers to anything recently ingested.
6. Canonization is an occasional clinical sign of:
 - a. St. Anthony's Fire
 - b. St. Vitus Dance
 - c. St. Louis encephalitis
7. A drumstick represents:
 - a. something to eat
 - b. something to beat
 - c. something to treat
8. Councilman Bodies in Philadelphia:
 - a. have yellow fever
 - b. are related to Crooke's Bodies
 - c. are also known as howly-jowly bodies
9. Female (F-) bacteria include:
 - a. Candida
 - b. Bordit-Ella
 - c. Hemo-Phyllis
10. Trousseau Syndrome:
 - a. is expensive to treat
 - b. is highest in incidence in June
 - c. is a hysterical phenomenon observed among admirers of the Prime Minister of Canada
11. Factors involved in cellular fertility are:
 - a. The Pill
 - b. Pilli
 - c. Pillows
12. Included in the Torah are:
 - a. Patho-Genesis
 - b. Exudate
 - c. Deuteromycetes



Sophomore pathology students are instructed by Drs. Shuman and Mark (this page) and Dr. Abaza (facing).



The following are true or false questions: some may be both. Please triangulate the correct answer. This section will be graded separately from the above: circles will be counted as wrong answers; squares may or may not be counted as triangles, depending on your artistic ability. Your abstract artistic ability will be tested separately later, on the lab practical. By this time you probably have no more than 45 seconds, 3.8 degrees left before this exam ends. Use your time well.

1. Staph resistance is a normal evolutionary process in student-faculty relations.
2. A person with an immune complex is one with a phobia about complements.
3. Pennsylvania's vigilante groups are sometimes called the host versus graft.
4. Reagin is the readily diffusable, non-compliment fixing governor of a large western state.
5. TB or not TB, that is congestion.
6. When a southerner swells up in anger, he is exhibiting dysplasia.
7. Varicose veins refers to a condition in which veins are very tightly jammed together.
8. An infarct refers to a condition in which flatus progresses retro-grade.
9. Pompe's disease is characterized by Vesuvial eruptions.
10. Lancing a bleb is also known as shooting the bullae.
11. Platelet aggregation is what occurs in the kitchen sink.
12. The best way to core erysipelas is strep by strep.
13. Lipofuscin refers to fellatio.
14. While most bacteria are grown on culture plates, saprophytes are grown on culture plates.
15. Imitators of Mrs. Lisa's smile are pseudo-Monas.
16. "Russel Fuchs Bodies" is an example of an atypical graffiti.
17. Polymyxin refers to the mating of parrots.
18. A locale without gonococcus is a Neisseria to live in.
19. Abnormal sounds heard during the expirations of TB patients are known as Ghon with the Wind.
20. A Cuttysarkoma is a condition peculiar to Scots.
21. Lesions in the tunica intima are also known as holes in one's unmentionables.
22. Porphyria is a distrust of the impoverished.
23. Tart cells are usually found in borditellas.
24. An example of political mudslinging is the accusation that spirochetes.
25. Cleavage in a "zoftig" Madame is also known as a cholesterol cleft.
26. A lymphoblast is a party for lymphomaniacs.

HAVE A FINE THANKSGIVING



*St. Cosmos and St. Damien
Johannes Wechtlin*

Pharmacology

Gr. *pharmakon* a god or higher being with magic powers of herbs, infusions, and vapors + *logos* reasonable discussion.

Pharmacology is one of the subjects whose origins go back thousands of years. Highly organized compilations of drugs and drug preparations, discovered empirically at first, are called pharmacopeias, the first of which was the Egyptian papyri of Ebers (1550 B.C.). In this and later papyri sophisticated drugs and therapeutic interactions were described. The identification and preparation of crude drugs from natural sources (pharmacognosy) still grows and was assisted by the botanical systematization of Theophrastus (300 B.C.). Finally, by the first century A.D., Dioscorides was able to classify his *materia medica* by substances rather than by disease syndromes.

The first U.S. pharmacopeia was published December 15, 1820, printed in both Latin and English, and its 272 pages included 217 drugs which were "worthy of recognition". This book was undoubtedly a well-used source for the 1850 F.M.C. students who had only six courses, one of which was "Materia Medica and Therapeutics".



*An Apothecary's Shop
A Doctor Selecting Drugs, 1497
German School Late XV Century*

*Pharmacology Laboratory
Woman's Medical College, 1903.*

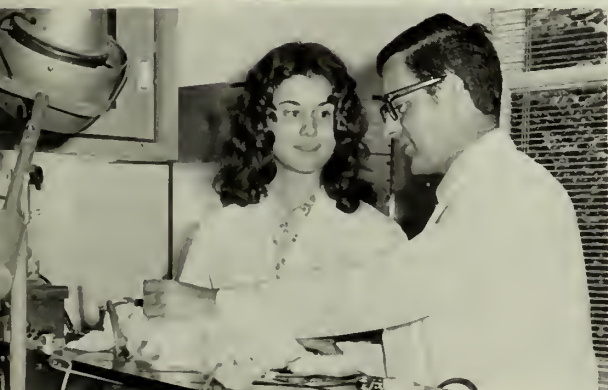


That course was always a "watered-down compote" of the ancient empiric observations and a mortar-and-pestle form of pharmacy. In the 1850 college catalog the total course description was: "Professor Dickeson will make use of drawings and specimens illustrative of this course with such instructions in Botany as the time will permit."

Academic pharmacology began in 1891 with the appointment of John Jacob Abel as the first "Chair of Pharmacology" in the U.S. (University of Michigan). However, most medical schools stayed with the time-honored materia medica through the 1920's. By the 1930's chemotherapy was growing wildly. In 1922 thiamine deficiency was linked to a clinical state; in 1923 the first ancient medicinal—morphine— had an exact biochemical structure; in 1928 Fleming discovered penicillin; and by 1937 the antibiotic era was opened with the sulfas. Since then thousands of chemicals have been studied, and the knowledge of this disciplined science is essential for every physician. The body of knowledge encompasses pharmacodynamics, drug metabolism, theories of drug actions, and practical and toxicologic aspects of drugs.



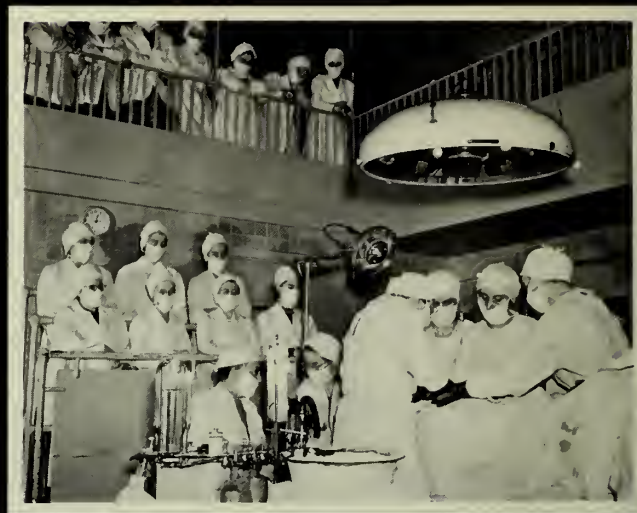
In 1947, W.M.C. was written about in a Philadelphia Inquirer article. This picture and that in the introduction to Clinical Medicine both show the Sophomore Pharmacology course. The captions read, "Women's Medical College is among the few medical schools where students are required to take training in the compounding of prescriptions. The students work directly under the supervision of the College Hospital Pharmacist." In the picture above, sophomores Friedenthal, Vraki, Levine, Gaciz and Cohen study the effect of streptomycin on isolated tissues in pharmacology laboratory.



Faculty members Drs. Weiss, Vincent, Kelliher and Gabriel.

Clinical Medicine

1946. Juniors stand in gallery to observe Drs. Chloe O. Fry and assistant Helen K. Grace in surgery. Junior Margaret Densmore administers anesthesia under Dr. Julia Hardin's direction.



Freshmen wear crisp new white jackets as they learn the essentials of history-taking.



I.C.L.M.
Drs. Frankl, Chirife, and Bostrom teach cardiac physical exam to Sophomores.



Senior Joye observes 1975 ENT microsurgery.

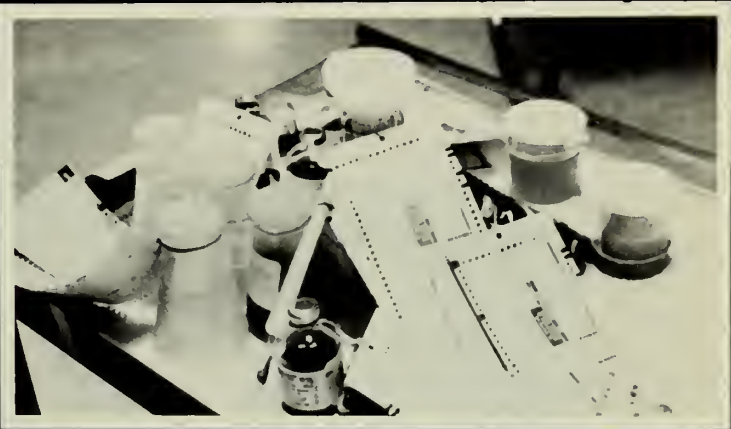




Pediatrics 1897



Obstetrics 1900



Pediatrics 1940s





American Ward Rounds, 1945
Robert Riggs



The Consultation, 1516
Italian School



3/12/75 3 A.M. ICU

Pt: 64 yo BF, married, 4 children, housewife.

CC: SOB

HPI: This pt presents for her 10th MCPH adm. $\bar{c}$ a long hx of RHD, ASCVD $\bar{c}$ CAD and RCA, LAD and 1st circumflex AC bypasses 4 years ago, DM controlled by NPH and Reg insulin od, HBP x 2 yrs., and now progressive CRF with chronic CHF and edema.

During the wk PTA the pt experienced DOE (3 steps), SOB $\bar{c}$ eating, PND x 2 nights, cough productive of white sputum, fevers, and dysuria. On the night of adm. the pt. was acutely SOB $\bar{c}$ wheezes, pink frothy sputum production and prostration. She was brought to the ER by fam.

meds: HCTZ 50 od, dig 0.25 od, aldomet 500 qid, catapres 0.1 TID, inderal 80 qid, isordil 2.5 SL q4h WA, NPH 45 and Reg 15 in AM, NTG prn.

allergies: PNC (rash), ASA (G6PD def. anemia)

PMH: +UDOC, SF, T+A, appdx, 3-vessel bypass, BKLLE amput, TAH/BSO.

ROS: +HA, blurred vision, asthma as child, UTI, G₆ P₄ Ab_o, Stage 1 cervical CA $\bar{c}$ no recurrence, PVD, periph. neuropathy.

FH: M HBP, CRF, CVA 2 sibs + DM, HBP F MI

SH: + smokes 1½ ppd x 35 yrs.

+EtoH x 2 oz. od

Phila, hswfe, 6th grade

Physical: acute distress, 210/110 — 120-44-98, pale, NVD at 90°, bilat wheezes, bibas dullness, rales all fields tachy 120, reg, PMI 6 LICS antaxline, S₃, 3/6 SEM LSB +NJR, liver 16 cm, + fluid wave, + 4 bilat edema to knee.



Professor Mary Curcio (WMC, '33) examines a patient on rounds in this 1947 Saturday Evening Post article with resident Katheryn O'Connor (WMC, '46) and senior Emilie Loeffler (WMC, '48).

Internal Medicine

Hippocrates (460-357 B.C.) has been called the "Father of Medicine" and has been credited with writing at least 13 treatises comprising the *Corpus Hippocraticum*. This body of knowledge formed a turning point in medicine. *On Air, Water, and Places* is the first work on physiotherapy; *On the Prognostics* describes the new science of prognostics, uses the observation of urine, feces, etc., as helpful clues, and enumerates the symptoms of approaching death which are still called "facies Hippocratica." *Epidemics* relates 42 clinical case-histories, mentions the mortality rate of 60%, and states his radical refusal to regard epilepsy as a sacred disease. Although his theory of "imbalanced humors" has not survived the years, the terms sanguine, phlegmatic, choleric and melancholic have.

In his 1872 *History of Medicine*, Dunglison states of Hippocrates: "The revolution which he caused in practical medicine, semeiology, pathology, and dietetics, (differed) from the plans before him by the Asclepiadae and the philosophic sects — He taught physicians that their first duty is to observe attentively the progress of nature (vis medicatrix naturae, the healing power of nature)." Hippocratic pharmacopeia included mild purgatives, emetics, astringents and narcotics. He knew little anatomy or physiology.

The Hippocratic Oath and his treatise *The Physician, his Precepts, and Aphorisms* present a formulation of medical ethics serving as a Western standard of medical conduct. "Above all, do no harm."

L'Infirmierie de L'Hospital de la Charite de Paris ward Medicine in the Renaissance.



WMC ward rounds with the young Dr. Gottlieb 20 years ago.



In 1956 seniors Jeanne Gifford and Mary Rando presented a difficult pulmonary patient to WMC President Burgess L. Gordon.



In 1962 Senior Seana Quinton (Hirschfeld) presented her weekly case to the three professors (note Dr. Bassett) conducting a special oncology (tumor) conference. Today Tumor Boards attended by physicians from many different fields (radiology, medicine, surgery, hematology-oncology, pathology, nuclear medicine) are required for hospital accreditation. At MCP they are well-attended and often the focus for lively debates (Bassett, Parker, Jepson, and Shuman).

Neurology

As early as 1600 Sydenham recognized that neurologic and psychiatric diseases were distinct (eg. hysteria vs. chorea). However, the neurologic subspecialty didn't exist meaningfully until the late 1800s. By then the body of knowledge of neuroanatomy (Henle's sheath, 1871), neurophysiology (wallerian degeneration, 1850; Claude Bernard's paralysis with curare, 1857; Broca's localization of cerebral functions, 1860) and neuropathology (Nissl bodies, 1892) was adequate to explain clinical observations (Kernig's sign, 1882). In the 1920s the roles of acetylcholine and electrical impulses were identified in nerve conduction, and by 1936 Walter was using the EEG to localize brain tumors. In 1934 the American Board of Psychiatry and Neurology was established.



DEPARTMENT OF
NEUROLOGY

R.A.BURNS, M.D.

B. HERBST, M.D.



Endocrinology

As early as 100 A.D. Aretaeus the Cappadocian described diabetes in his book on chronic diseases. By 1674 Willis could distinguish between mellitus and insipidus by the sweetness of the urine, and in 1776 Dobson evaporated urine, demonstrating that it contained a sugar. Finally in 1788 the anatomic-physiologic relationships of endocrinology became evident when Cawley linked diabetes to pancreatic dysfunction. The father of endocrinology, Claude Bernard, in 1848 used research techniques to demonstrate that digestion continued within the intestine with the aid of pancreatic enzymes, that the liver manufactured and stored glycogen and that the body used vasomotor mechanisms and internal secretion (endocrine) functions daily. Between 1900 and 1940 parathyroid and calcium were linked, carotid sinus respiratory and pressor responses discovered, pituitary functions (including Cushing's syndrome, 1932) described and the interrelationships of the hypothalamus and pituitary (1939) demonstrated. Since Cori and Cori's 1947 Nobel Prize-winning glycogen-cycle-chemistry, modern endocrinology and biochemistry have been intertwined at the subcellular level.

The Bartuskas and Dr. Gottlieb represent Endocrinology at President Slater's inauguration, January, 1975.

Pulmonary

The pulmonary sciences grew out of the 1800s descriptions of TB, "consumption", and pneumonia, "the old man's friend". By 1819 Laennec had described the more sophisticated entity of bronchiectasis; later, spirometric studies became as common as culture techniques, and by 1898 the more invasive diagnostic procedure of bronchoscopy was first performed by Killian. In the

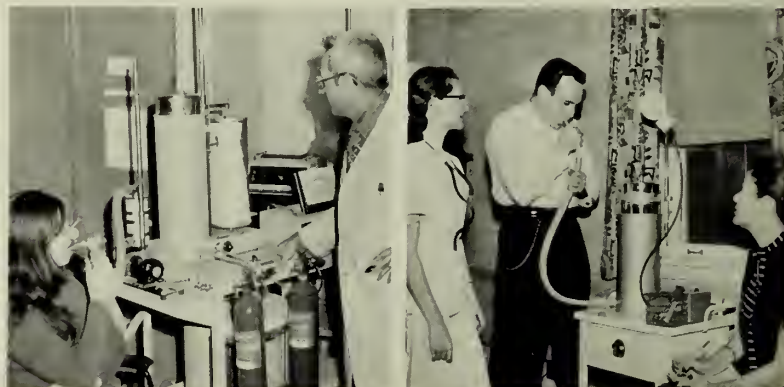
New Pulmonary Chief Dr. Morrissey teaches x-ray findings; Dr. Siegel supervises the newer spirometry apparatus (1972) which replaced that used by Resident Bartuska in 1957.



Door of Dr. Rosalie Burns, Chrmn.; Drs. Dhopes and Dunn "cut up" at Neuropath Conference; Clinic Drs. Dhopes and Sanders; the neurologist's dream (or nightmare?).



early 1900s surgical approaches to bronchiectasis (lobectomy, 1908) and TB (collapsing lungs and decortications) were instituted. But modern pulmonary care didn't begin until the antibiotic era of the 1940's removed the patients from sanatoriums and returned them to society and the realm of general hospital medicine.



Nephrology

Before America was discovered, in 1476 de Saliceto of Italy noted that "renal dropsy was caused by contracted kidneys". Then in 1588 Diaz published the first treatise on kidney, bladder and urethral diseases. As early as 1666 the complex anatomy of the kidney was appreciated as Malpighi described the tuft of blood vessels surrounded by the expanded primary part of the uriniferous tubule.

By 1874 renology was more oriented toward function and physiology. Heidenhain added a secretory theory to the strict filtration concept, and in 1898 extracts of kidney were found to have a pressor substance "renin"; this added an endocrine function under certain circumstances, including the hypertensive arteriolar nephrosclerosis described in 1914. In 1925, the resorptive function was recognized.

In 1908 the French surgeon Carrel performed the first renal transplant from one animal to a second, but it was not until 1950 that the first human homotransplant was achieved. In 1944, the first artificial kidney, a dialyzer with an extensive surface for exchange, was introduced by Kolff, and modern renology had begun.



Dr. Labovitz, medical history buff and superb renal-electrolyte teacher, browses through the Archives.



Dr. Matthew Levison

This 1720 plague protection costume was worn by Marseilles doctors; it was made of fine leather, had crystal lenses closing the eyeholes and a long nose filled with aromatic gums to filter out "foul odours".



(1.) Dr. Katz demonstrates endoscopy with GI fellow Jules Lacavaro as patient. (below) Dr. Rubin leads a GI CPC which includes x-ray and ex-patient testimony!



Infectious Diseases

Through the ages millions of people have died of infections or in epidemics — the plague of the Middle Ages, the acute fulminating syphilis which ended the Renaissance in 1495 (Naples), and the steady killer smallpox which killed 60 million people in the 18th century alone. A now nameless milkmaid was the heroine in the smallpox story for she was overheard to say by Edward Jenner in 1796 that she could not catch smallpox because she'd already contracted cowpox. He tested the theory on an 8 year old boy using the pus from a cowpox pustule and eight weeks later the boy failed to develop any symptoms when inoculated with regular smallpox.

The 1800s then saw the development of the germ: 1 disease selectivity theory, the observation that yeasts, bacteria and protozoans could cause disease in humans and that filtrable viruses (Latin: poisons) causes disease in plants (TMV, 1892), animals (foot-and-mouth disease, 1898) and humans (yellow fever, 1900, Walter Reed and the Army Commission). Finally in 1937 we had sulfa drugs and in 1943 the giants penicillin and streptomycin. By the 1950s man's greatest killers became non-infectious in nature.

Gastroenterology

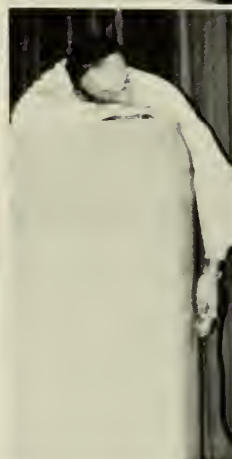
When the centers of medical thinking in the 1600s and 1700s were in Padua, then Leiden and Scotland, gastroenterology began. In 1700 Spullanzani of Italy demonstrated the digestive power of gastric juice, and the liver's role in the body's "humors" and "bilious fevers" was legendary. By 1844 Schwann had worked on artificial biliary fistulas in dogs and noted that bile assisted in digestion. Four years later Bernard noted that pancreatic enzymes were necessary and prevented malabsorption. A diarrheal state similar to or identical to sprue was described in 1888 by Gee, an English pediatrician.

More specific biochemical concepts emerged in the 1920s. First the extrinsic factor B_{12} was found in liver extracts which were used therapeutically for pernicious anemia patients; soon afterward a lack of either this extrinsic, or an "intrinsic", factor was found to be causative in PA. "GI" was becoming biochemically sophisticated and by 1932 the American College of Gastroenterology was formed.

It would be impossible to consider the dept. of medicine, 1975, without mentioning Dr. Kaye. He has been controversial since Day One, but has built an academically competitive and research-oriented department which, though it intimidates, well-prepares MCP's students to seek and successfully complete residencies across the USA and Canada.



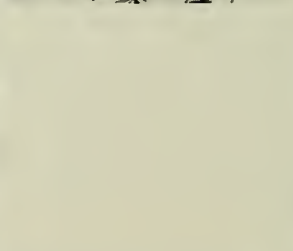
Dr. Klinghoffer and her psychiatrist husband, Dr. Wenger, walk down the second floor Medical Dept. offices area. Dr. Klinghoffer organized our junior rotation and intermittently represents Medicine at the Curriculum Committee.



Skit Night 1974 staged a Medical Faculty and House-staff skit. Dr. Kaye began reviewing the case presentation and felt it necessary to seek the advice of various consultants. He tired while waiting for some consultants' decisions (above left) and even had Dr. Bartuska carried off the stage in the middle of her tap dance and song, "I can do anything you can do better, Dr. Kaye!" The housestaff threw pies in the excitement (LaPorte, Serrano, Mary Garra), and the Cardiologists (all smoking) added their opinion.

FACES

Resident John Contino after a long night on call; Intern Doris Bartuska taking an electrocardiogram in 1954; Residents line up for all the official paper work; 1974-75 Housestaff Paula Fischer, Mary K. Stom, Carole Eisen, Joyce Kay, Linda Pape, Lloyd Garren and Neil Friedman enjoy one of the many Eisen-culinary treats.

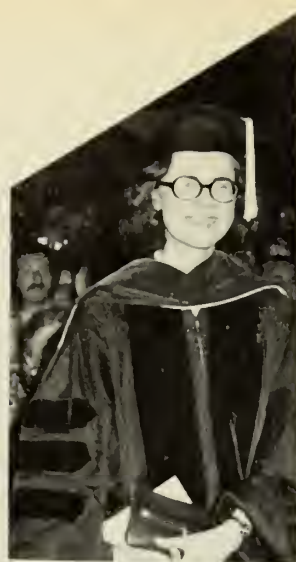
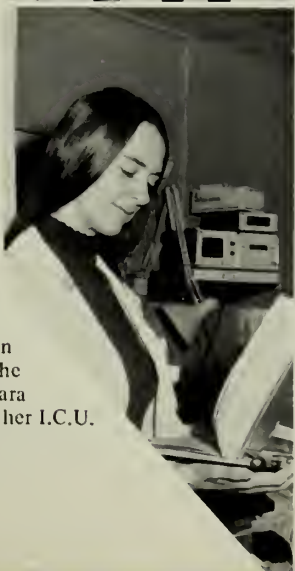


Senior Nancy Kerr calls for old records for a cardiology patient; Senior Shelley Cross and Resident Jim Joye work in a nurse's station; a junior and a resident prepare for Professor's Rounds.

in MEDICINE

Residents Andy Hanaway, Steve La Porte, and Herb Caskey in the Library; Residents Roger Koerner and

Paula Fischer at the V.A.H.; Resident Cindy Berg counsels a patient; Chief Resident Hardy Sorkin contemplating.



Endocrinologist Bartuska receives the 1974 Lindback Award for Distinguished Teaching; Dr. Manlove converses with Resident Stellmacher in clinic; Endocrinologist Gottlieb shyly looks on while Resident Schimmel examines an amused patient; Dr. Larry Browne.



Residents Jonas and Roth; new residents Ripley, Carrideo, Sherm.



In July, 1970, Dr. Kaye was new to MCP and met with department members; Dr. Rubin on rounds with some of his first MCP students; the 1970 attending staff included Drs. Kovnat, Boots Cooper and others who have since left MCP; the new Kaiser Auditorium was barely ready for the academic year to start in September, 1972. Here a bearded Dr. Kaye opens the first medical grand rounds in it.

Resident Carole Eisen in the 2nd floor conference room; Residents Paul Danier, Norma Wenger, Harvey Silverman and John Contino in the E.R.; Resident Barbara Livermore reviews her I.C.U. patient's chart.

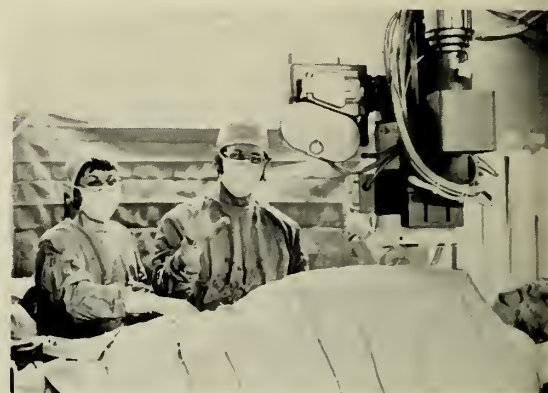


1947, Sophomores Carol Vorraux and Margaret Schlegel practiced a new test, electrocardiography, in Physiology under Dr. Roberta Hafkesbring's supervision.

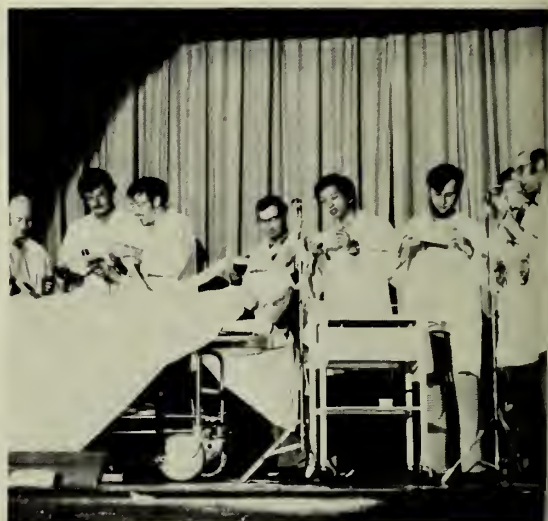
Cardiology An Interface between Medicine . . .

Cardiology has probably changed more in the last 30 years, since the first wide-spread use of electrocardiograms and pacemakers, than in the prior 300 years. In 1733, Stephen Hales first recorded arterial blood pressure as he placed a clear pipe into a horse's carotid artery and measured the height of the column. Through the 1800s the use of the stethoscope and the art of auscultation grew, exemplified by the clinicopathological observations of Sr. William Osler.

At the turn of the century cardiovascular surgery was developing. In 1897 John Benjamin Murphy introduced the end-to-end suture of blood vessels and Ludwig Rehn first successfully sutured a stab wound of the heart in man. When in 1901 Karl Landsteiner delineated blood groups in Vienna, the way was paved for safe blood transfusions and all the pump innovations which led to open-heart and bypass surgery.



The cardiac catheterization lab was so swamped with referrals they had to build a second one! Dr. Toby Engle is teaching Cardiac Fellow Chris Bostrom, WMC.



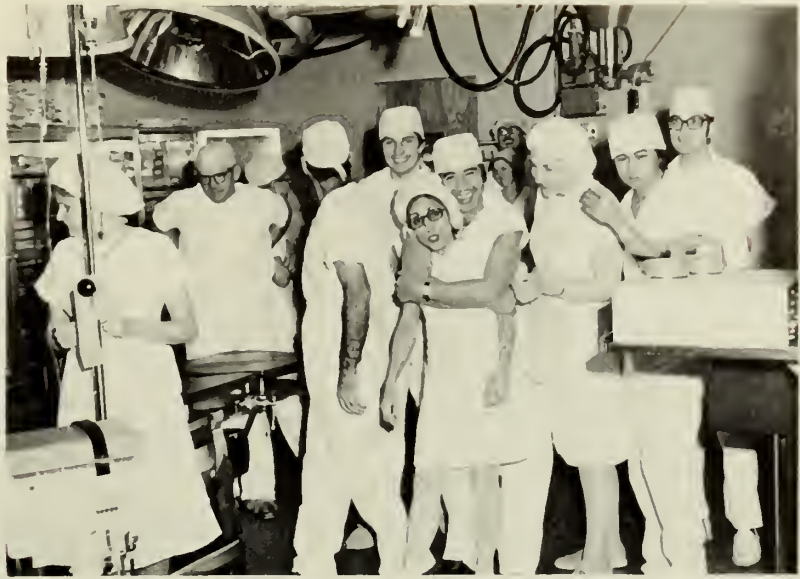
Fellows and faculty fully enjoyed the consultation spoof in Skit Nite (patient was Richard Nixon, Jim Joye).

Dr. Frankl, chairman of cardiology, explains heart sounds simulator to student Jerry Williamson; Former ICU nurse; Dr. Meister, cup of coffee, and bi-weekly cath conference; Cardiologists Lawrence (V.A.), Uricchio, Urbach, Frankl, and Chirife; Dr. Meister; Dr. Bentivoglio in his bloody tennis shoes; Dr. Kraus and his teletaped stethophoned cardiac examinations.

... and Surgery



Drs. Uricchio and Ablaza discuss a patient's pre-surgical cath results.



The Open Heart Surgical Team has been working (and playing) hard since 1972-73. Dr. Ablaza is quick and accurate and "makes it all look easy."

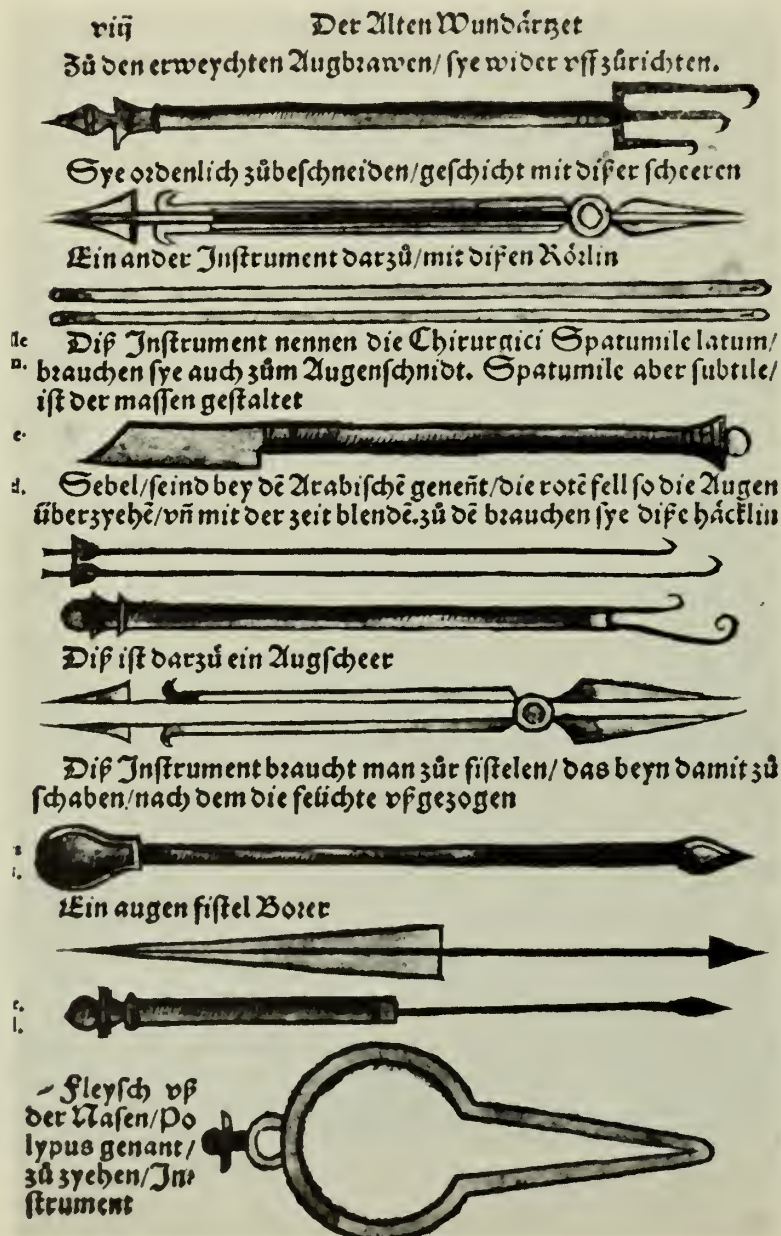


370 B.C. Celsus: "In a wound of the heart there is great hemorrhage; the vessels are collapsed, the complexion pale; there are cold dew-like sweats, of a disagreeable odor; and the extremities becoming cold, death soon follows."



*The Village Surgeon
Cornelius Dusart*

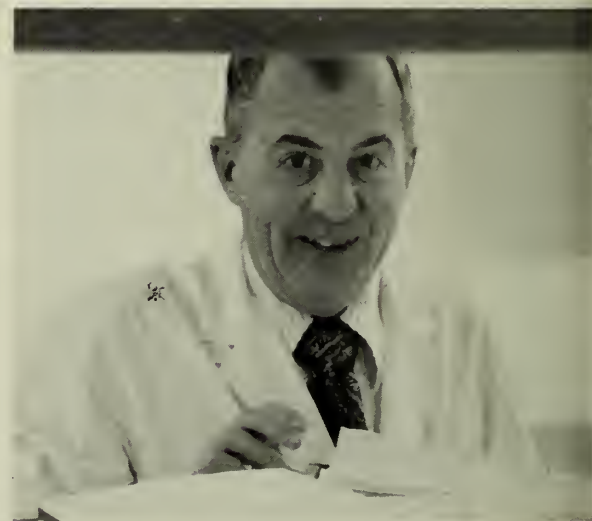
*Surgical Instruments, 1517; German School
Early XVI Century*



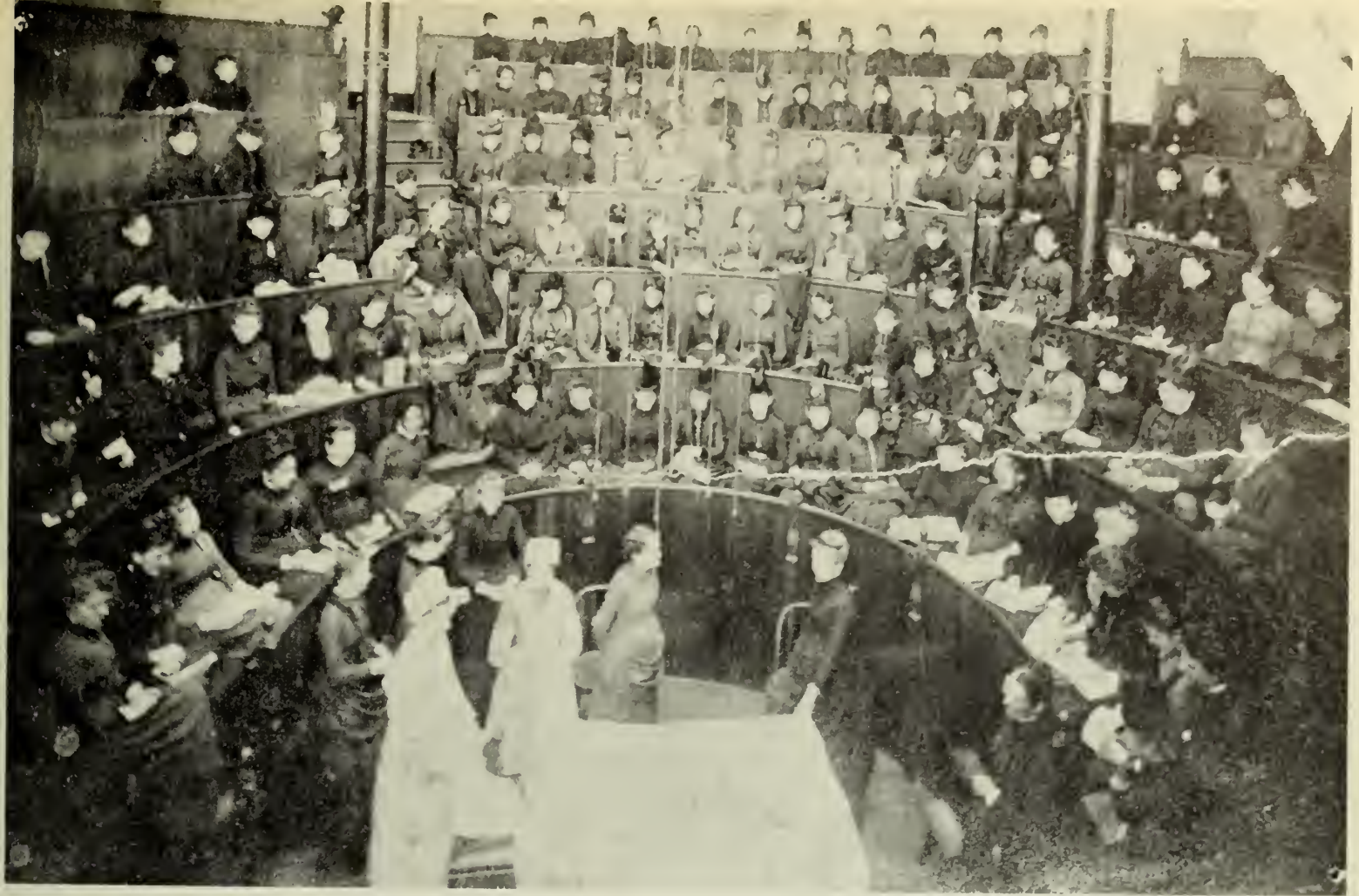
Surgery

Studies of human remains show that surgical techniques had become competent in some hands from prehistoric times until the mid-1700's. In general, surgery was not "quality-controlled" or "licensed" and was considered an inferior branch of medicine. There were four reasons why surgery did not develop: ignorance of anatomy; inability to control hemorrhage; lack of anesthesia; and ignorance of antiseptic techniques.

Surgery has always been a male-dominated field in America. In the 1850's, F.M.C. graduates were not admitted into the clinical training "internships" of the university hospitals. Hence, they were forced to be apprentices to sympathetic private practitioners, nurses in hospitals and asylums, or to travel abroad. Emeline Horton Cleveland, graduate in 1855, aspired to be a surgeon. She travelled to the famous residency of La Maternite in Paris, became a skilled "ovariotomist," and returned to Philadelphia to be the first resident in the newly founded Woman's Hospital, seen at right. She remained there and as a faculty member trained scores of young physicians in surgery.



*Dr. Donald Cooper
Chairman of Surgery*



Operating Room Ampitheater at the Woman's Hospital of Philadelphia, North College Avenue. Picture 1890.



Dr. Bassett, Surgery and Tumor Board.



1973. Dr. Alma D. Morani, famous alumna surgeon, presents her gift, establishing an immunobiology lab, to Drs. Donald Cooper and Subhash Bansal.



O.R. Supervisor, Norma



Our junior surgical rotation was 9 weeks long, including 6 weeks of general surgery (either at the V.A. or at M.C.P. on Blue or Yellow Service) and time in the subspecialties of urology, orthopedics, anesthesiology and neurosurgery. We did work-ups, started IV's, learned to scrub, hold retractors, suture, and cast extremities. The first 2 days were always the worst, getting used to being on our feet for hours on end for several sets of rounds, running errands and assisting. Junior Frank Cavoto's stance reflects the frustration of inefficient communications while Judy Bronstein's reflects the excitement and concentration we all experienced while assisting.

300 B.C.: Hippocrates favored the "dry" treatment of wounds with, at most, the application of wine as a dressing.

Early 1800s: The Masai North American Indians enucleated eyes and with great skill amputated limbs with hopelessly complicated fractures. They even had prostheses. The Carrier, Mescalero, Dakota, and Winnebago Indians sutured with sinews; the Masai and Akamba sutured with thorns; they also practiced wound drainage.

1851: The ophthalmoscope was invented by Helmholtz.

1866: Lister began using carbolic acid in an attempt to prevent infection.

1878: J.M. Sims undertook the first cholecystectomy.

1881: Theodor Billroth performed the first successful removal of a portion of the stomach for carcinoma of the pylorus.

1879: "The observer . . . saw the operation (caesarean section) performed upon a 20 year-old woman in Kahura in Uganda. Banana wine served as anesthetic and disinfectant. Haemorrhage was checked with a red hot iron. The incision was made in the midline, between symphysis and umbilicus, and closed with iron nails. The temperature never rose above 101° F. in the postoperative stage, and the wound was closed on the eleventh day."

1932: Sixty-nine (69) women were in the College of Surgeons.



1956. Surgery at W.M.C. featured the revered Dr. "Kitty Mac," Macfarlane (right). Above she is showing "zoom life," a new operating room fixture to Drs. Marion Fay and Burgess Gordon.

1959. Surgical experience for both junior and senior students has included instruction in trauma management in the E.R. surgical clinic.

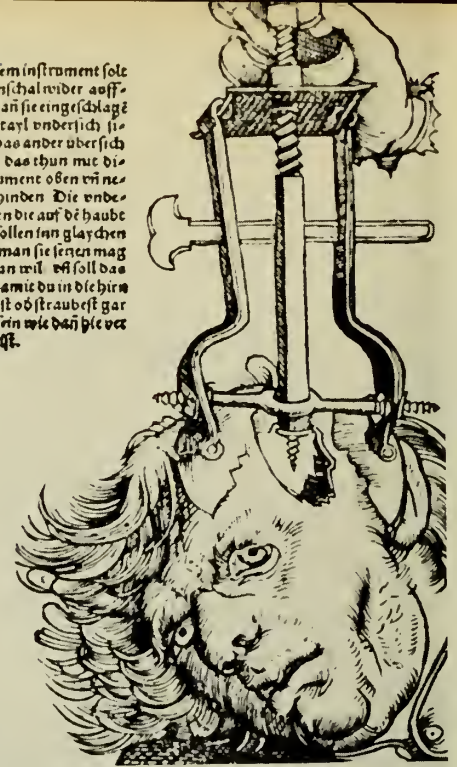
Surgical resident Ellen Anderson as a freshman; the great Resident Kusminsky; Dr. Cooper; O.R. personnel; Senior McGowan and Resident Pena Guerra; at the V.A.H. Dr. Felix demonstrates his Doppler Flow study for Dr. Boland (1971); Dr. James Bassett; and one of Norma's able O.R. assistants.

Neurosurgery

Hans von Gersdorff
Trephination, 1517

Through the centuries trephination (right) was used to free evil spirits and cure headaches, but without anesthesia or antisepsis the results were poor. In 300 B.C., Hippocrates said about injuries of the head, "You should make inquiry as to these particulars (for they are symptoms of greater or lesser injury) whether the wounded persons was stunned, and whether darkness was diffused over his eyes, and whether he had vertigo and fell to the ground." In the late 1800s Victor Horsley started operating on tumors of the brain and spinal cord. Then between 1918 and 1929 the diagnostic aids of pneumoencephalography, myelography, EEG's and arteriograms ushered in the modern era. Recent refinements are the brain scan and flow studies and the EMI, ACTA, Delta scanners.

¶ Mit diesem instrument solt
du die hirnſchal wider aoff-
en vnd ſie eingedrückt
iſt vñ ein taylor vnderſich ſie
bet vnd das ander überſich
vñ magſt das thun mit die-
ſem instrument oben vñ ne-
ben oder hinten Die vñde-
ren lappen die auf die haube
ſtecken ſollen ſie in gleychen
geen das man ſie ſehen mag
waſſer man wil vñ ſoll das
ſtrobin damit du in die hirn-
ſchal boreſt oß ſtraubeſt gar
ſcharff vñ wie dan die vñ-
erſchneidet iſt.



Hans von Gersdorff
Trephination, 1517

Drs. Karafin (pictured) and Kendall are urologists at
MCP and Temple.

Urology

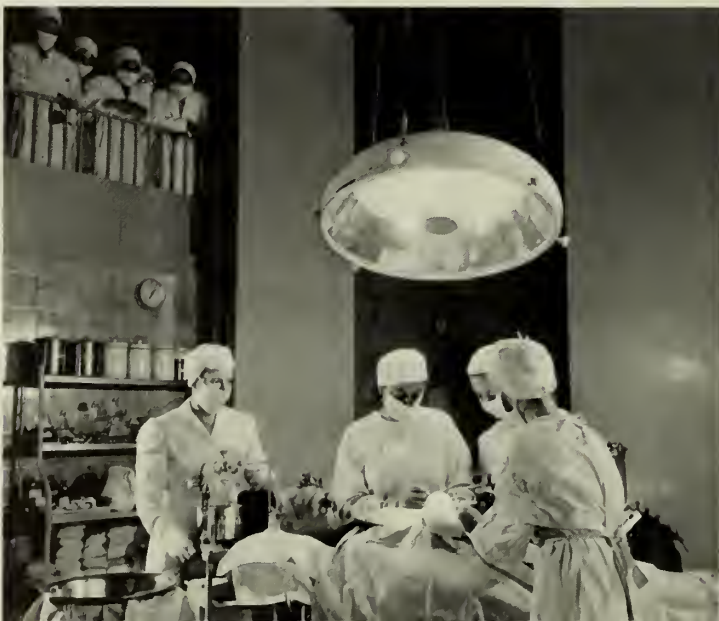
The first successful human kidney removal recorded was in 1869 by Gustav Simon. Urology, too, has grown and changed in the past 100 years and includes the diagnostic entities of the IVP, cystoscopy, selective ureteral catheterization and cystometrics and Management of impotence to tumors.

The Egyptians developed reparative surgery as early as 3400 B.C., utilized sutures, adhesive tape, lint dressings and ointments by 2500 B.C., and employed forehead tissue flaps in nose reconstructions as well as free gluteal skin grafts by 600 B.C. Unfortunately, 1000 yrs. of Dark Age stagnation later, Tagliacozzi in 1597 was left to revive the reconstructions. And it was not until WMC was 19 years old, in 1869, that free skin grafting was revived (Reverdin). Several world wars then necessitated techniques for healing difficult wounds, and now the field encompasses pedicle grafts to cosmetic procedures.



These pictures from The Saturday Evening Post article about WMC, 1949, show Dr. Alma Dea Morani operating while the junior medical students observe from the gallery. Right below: Two young surgeons preview films against a window viewbox!

Plastic Surgery





Dr. Sbarbaro (left), inventor of several orthopedic surgery devices, is head of orthopedics and super at all the macro-surgery. On the other hand, Dr. Didizian (right) is a wizard with the micro field of the Board Certified subspecialty of Hand Surgery.

Repositioning a dislocated backbone by means of traction and ladder like extensions, from a ninth-century commentary on Hippocrates' treatise on fractures.



1975 Senior Mib Matejczyk scrubs with Ortho Resident Palmaccio in preparation for a knee case.

In this 1959 WMC Orthopedic Clinic photo, senior students are instructed by Dr. Anna M. Brady.



Orthopedics

Egypt, 2730 B.C.: Several varieties of **SPLINTS** were employed; the mid-rib of the date palm leaf, spongy strips of wood, bark of the acacia tree or bundles of straw from coarse grass . . . more than 2 splints might be used to form a protective casing . . . the results of **FRACTURE TREATMENT** were remarkably good, but cases of malunion and non-union have been found. No healed fracture of the spine was encountered whereas sternal and rib fractures showed good union. All pelvic fractures healed, sometimes with malunion. Fractures of the bones of the upper limb gave variable results. Whereas those of a single bone of the forearm were fairly good, synostosis and deformities sometimes followed fractures of both bones of the forearm.

Greeks, 400 B.C.: The Greeks treated **CLUB FEET** by stretching and wrapping feet firmly with bandages impregnated with some white of egg solution in glycerine, which, when hardened, tended to serve the same purpose as the modern plaster of paris cast. In this way the feet were slowly stretched into a straight position and held there.

1580 A.D.: **AMPUTATIONS** of legs and arms have been performed since prehistoric times. However, they were always quite brutal, being guillotine types of amputations with boiling oil cauterizations. Finally in 1580 Ambroise Paré introduced the use of a tourniquet to numb the limb, control hemorrhage, and pull back the muscles for eventual padding and covering of the stump.

1775: The first recorded attempt at internal fixation using wires to fix bones in place was by Lapuyade and Sicre. Unfortunately they were accused by another French surgeon, Icart, of causing the death of the patient in two days.

1861: E.S. Cooper of San Francisco successfully wired together a bone (the patella) without subsequent infection.

Late 1800s: The American surgeons finally "came of age" and had enough depth that they could train here in the U.S.A. without needing to rely on the traditional European sophistication.

E.N.T. clinic hasn't really changed that much over the years!

E.N.T. is no longer just TONSILS! Another of the oldest subspecialties, this one has come a long way, again because of microsurgery and instruments. Otolaryngologists define their field differently, but they all agree that it has variety.

E.N.T.



Dr. Marlowe, E.N.T., hypnosis, plastics, macro.



Dr. Wolfson, E.N.T., labyrinthitis, ear microsurgery.



Dr. Anne Pike, 1947 intern (now uses larger speculae).

Dr. Golshan, E.N.T. resident, uses operating microscope like those used for ear and eye surgery. Note the teaching head.

Today E.N.T. includes audiology, ear surgery, prosthetic TM's and ossicles, head and neck trauma management, radical neck dissections, sinus diseases, plastic surgery of nose, head and neck, lacrimal duct diseases, bronchoscopy and mediastinoscopy, tracheostomies . . . and tonsils!





The mechanics of the eye are diagrammed and explained in this drawing by Leonardo da Vinci (1452-1519). Lacking detailed knowledge of the optic nerve and striations, he associated the eye with the pineal gland. Interestingly, the reference to the pineal as "the third eye" persisted in the physiologic literature well into the 1960's, and studies have shown the gland has a role in setting diurnal rhythms with the sun despite its lack of light receptors.

Ophthalmology



Tremendous technical advances have allowed Ophthalmology, the first board-certified medical subspecialty, to evolve into the highly specialized field it is today. In "the old days" patients were covered with sandbags after eye surgery because there were no small enough sutures, needles, etc. to close the large incisions of the macrosurgical instruments.

Today ophthalmologists may remain generalists or subspecialize in retina, cornea, glaucoma, neuroophthalmology, muscle diseases, external diseases, medical ophthalmology, etc. Microsurgery has vastly changed the field; so have fluorescein angiography, indirect ophthalmoscopes, transilluminating and vitrectomy instruments, and sialastic implants. Even the usefulness of the 20 year old laser has changed dramatically.



Dr. Forster, left, has given his time and enthusiasm to many MCP students. He offers a joint elective with E.N.T. for seniors which includes clinic (office) ophthalmology, surgical and trauma (Wills Eye Emergency Room) experience, and views of an exquisite slide collection narrated in his brilliant style. Assisting him with a cataract above is Dr. Tillman, Dr. Nachod (WMC, 1943) assists in clinic.

Drs. Emilie Loeffler (WMC, 1948) examines the eyes of classmate Margaret Gray (Wood), now president of the Alumnae Association, in 1948 Ophthalmology Clinic.



Ether as an anesthetic was first demonstrated publicly in the amphitheater of Mass. Gen. Hospital, 1846.

Since the dawn of medicine, men and healers have tried to control pain. Plant extracts including opium, mandrake, wine and cannabis (hashish and marijuana) had been recognized as pain-killers for centuries, but countless numbers of physician-pharmacists in Europe had inadvertently become addicted to them as they made and tested the chemical alterations. Carl Koller, a colleague of Sigmund Freud's, had noted the local anesthetic properties of cocaine in 1884. Freud had obtained cocaine from the USA in an attempt to treat a friend addicted to morphine, only to find he had transferred addictions. However, he had inadvertently noted that his patient experienced insensitivity and numbness of the tongue and mouth after the ingestion. Koller went on to test cocaine in the eye and found it equally useful for corneal procedures. However, because of its toxicity and addictive potential, cocaine had limited usefulness, and the search for a related substance was on. Finally in 1905 Einhorn synthesized the prototype "caine" procaine.

These substances, alcohol, local nerve compression, cold therapy, bullet-biting, etc. were never of great value for the acute pain and

ON OCTOBER 16 1846 IN THIS ROOM THEN THE OPERATING THEATRE OF THE HOSPITAL
WAS GIVEN THE FIRST PUBLIC DEMONSTRATION OF ANAESTHESIA
TO THE EXTENT OF PRODUCING INSENSIBILITY TO PAIN DURING A SERIOUS SURGICAL OPERATION
SULPHURIC ETHER WAS ADMINISTERED BY WILLIAM THOMAS GREEN MORTON A BOSTON DENTIST
THE PATIENT WAS GILBERT ABBOTT THE OPERATION WAS THE REMOVAL OF A TUMOR UNDER THE JAW
THE SURGEON WAS JOHN COLLINS WARREN
THE PATIENT DECLARED THAT HE HAD FELT NO PAIN DURING THE OPERATION
AND WAS DISCHARGED WELL DECEMBER 7
KNOWLEDGE OF THIS DISCOVERY SPREAD FROM THIS ROOM THROUGHOUT THE CIVILIZED WORLD
AND A NEW ERA FOR SURGERY BEGAN

Inscription on the wall of the old operating amphitheater, M.G.H., Boston, describing the event.

Artist's conception of the physicians participating in the demonstration. At the head of the patient is Dr. Morton, the dentist who administered the ether. At his right is the surgeon, Dr. John C. Warren.



MORTON INHALER.



FIRST SPONGE FROM WHICH ETHER WAS INHALED.

"THAT PAIN WAS NO LONGER THE MASTER BUT THE SERVANT OF THE BODY."

"WHEN THE FIERCEST EXTREMITY OF SUFFERING WAS STEEPED IN THE WATERS OF FORGETFULNESS, AND THE DEEPEST FURROW IN THE KNOTTED BROW OF AGONY WAS SMOOTHED AWAY FOREVER."—Oliver Wendell Holmes.

Anesthesiology

subsequent horrors of surgery. It was not until the birth of general anesthesia in the 1840's that surgery could progress.

In 1799 Humphrey Davy, a pulmonologist, had discovered nitrous oxide and constructed a machine for its administration. In 1800 he had even suggested its use as an anesthetic, but the medical world was apparently not ready for this news. Instead, for the next 44 years it was best known for its excitement properties and appeared in carnival acts. Dr. Horace Wells, a Hartford, Connecticut dentist, used the gas on himself first successfully but provided only a partially successful demonstration of its anesthetic properties when he took it to "the big city Boston" in December, 1844.

It was another dentist, Dr. William Morton, who on October 16, 1846, achieved the acclaim for his successful demonstration of diethyl ether in Boston. This was written up in the *Boston Medical and Surgical Journal* by the eminent surgeons Bigelow and Warren. Of course, he wasn't the first to have thought of its use (Michael Faraday, student of Davy, 1818) or to have successfully used diethyl ether (Crawford Long, 1842), but he was the first to have successfully demonstrated it publicly.

On November 21, 1846, just 4 years before the founding of W.M.C. in Philadelphia, Oliver Wendell Holmes wrote to Morton, emphasized the importance of his discovery in changing the course of surgery and medicine, and proposed the term "Anesthesia".

S.C. Benes

The implements of anesthesia have progressed from the simple sponges and vials of 1846 (left) to porous metal inhalers to the masks seen (below) in obstetric used 20 years ago to the modified masks and intubation equipment seen in use with Dr. Doris Gallagher (right).



Dr. Jacobi, chairman of the department, delivers one of her spirited Scottish lectures.

Ideally anesthesia should encompass pre-induction assessment and education of the patient, sedation, induction, intubation (if necessary), intra-operative medical care, and post-op monitoring in the recovery room.



Obstetrics and Gynecology



Child birth, 1580, by Jost Amman
Note that women attend the
parturient while men dis-
cretely gaze at the stars.

A VERY BRIEF HISTORY OF OBSTETRICS

The history of Obstetrics fascinates me on many levels, and each new source material I find opens up another point of view. When I first began my search, I knew that as a woman, mother and advocate of informed childbirth, I would find much in the literature about women throughout history acting as Obstetricians, although not designated as such.

By necessity, there is always one woman present at every delivery. It has been impossible to keep us out of the delivery room. It is also evident that every woman who carries a developing child, for whatever period of time is "recapitulating phylogeny" and subject to a plethora of history, myth, fears that recall an earlier time when child-birth was less safe than it is now and when less was known about human development and genetics.

What I did not realize, however, was how inextricably



Obstetrics in the 12th Century.
Note the woman doctor and nurse.





The 1918 WMC Hospital Christmastime babies are cared for by Dr. Florence Weaver (1911).

the history of obstetrics is tied to the history of women in medicine and to the history of our institution.

From earliest times, women have helped other women deliver their children. The nature of human development presents certain research questions and necessitates certain operative maneuvers. What can be done with a fetal head too large to pass through a pelvis modified for upright posture? What is the best way to deliver abnormal presentations? How can we diagnose fetal death or anomalies in utero? There are many more, of course, but this short list will show that the questions have not changed. The answers were theorized from very early (Neolithic) times as recorded in the Ebers Papyrus. Unfortunately, the proper tools were not available for use. It was at this time too that we see evidence for some operative techniques in use—tying cloth strips about the limbs of a fetus to aid inversion; possible use of forceps (?) or some similar instrument used as a vaginal speculum, and the presence of women as surgeons aiding the parturient.

Women and men continued to be important figures in Obstetrics through the civilizations of ancient Greece,

Rome and Byzantium. It was during the Dark Ages that the role of the surgeon began to pale in comparison to the internist and the role of women as physicians began to disappear. The care of laboring women was left to midwives whose only gratification might be a stable home life and the payment of a license fee. If surgery was needed, this task fell to *sargelders* or barber-surgeons. An occasional Caesarian delivery was performed by such a person on a living woman with survival of mother and child, although most times this was only done on a dead woman to save the child.

A dichotomy continued to develop with women midwives doing most routine deliveries while male physicians began to return to learning more surgical and operative procedures. Men were called in as consultants when needed. As modesty, chastity and obedience became more important than the practice of medicine, it became increasingly difficult to handle problem deliveries as the male operator or “*accoucheur*” was not allowed to view the generative organs of women and had to perform his maneuvers beneath a drape.

It was as late as the Eighteenth Century when forceps reappeared to be used routinely in delivery while the Caesarian operation still could not serve as a lifesaving procedure for both mother and child. Podalic version was known but not widely used even with forceps to aid in delivery of the after-coming head.

Not until 1847 was anaesthesia introduced for obstetrical use and in 1882 a method of suturing the uterine wound was described to prevent uncontrolled bleeding. Recall now, that our college was founded in 1850! The current treatment for eclampsia at that time was "bleeding from the saphenous vein, a cathartic, spirits of harts-horn, powder of pearls and crabs eyes, a potion of snails, worms, black cherries," etc., etc. AD NAUSEUM.

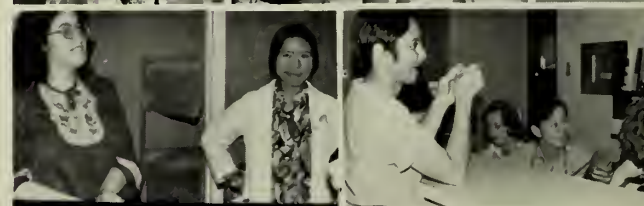
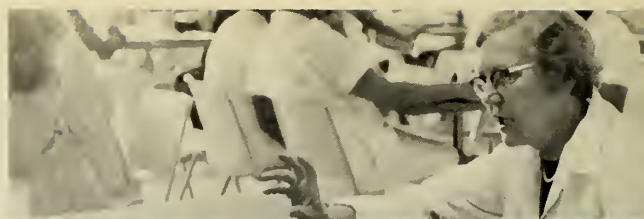
The first woman Obstetrician associated with our school and co-founder of the Woman's Hospital with Ann Preston was Emeline Horton Cleveland, who had studied at the School of Obstetrics and LA MATERNITÉ in Paris. It is interesting to note that this first woman resident at M.C.P. began her first day with her baby son on her shoulder.

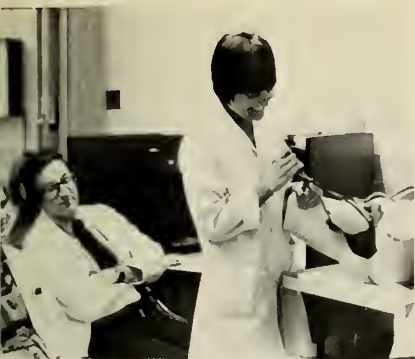
In 1888, the Out-Patient Department for Prenatal Care was founded by Dr. Anna E. Broomal. Prenatal care was a new idea then and many women viewed childbirth as the greatest danger in their lives because of morbidity and mortality from eclampsia, sepsis and puerperal insanity. Dr. Broomal's assistant, Dr. Catherine MacFarlane, went on to become a pioneer in cancer research and prevention along with Margaret C. Sturgis and Faith Fetterman. The list of notable women in obstetrics continues to grow with such women as chiefs Ann Gray Taylor from 1930-59, Mary De Witt Pettit 1958-67 and our present chairwoman, Elsie Reid Carrington who assumed the post in 1967.

The practice of Obstetrics has been the province of women by our species heritage. We have made great progress since the founding of our school; in prenatal care, operative techniques, anaesthesia and analgesia in childbirth and for post-partum care, the use of antibiotics in care of the mother and infant and the total management of the high-risk obstetric patient. Yet, there are many questions left to be answered in our life times and many for generations to follow. A fine tradition at the Medical College of Pennsylvania gives new physicians the impetus to continue in this direction.

Respectfully submitted,
Evelyn Levenson Weissman, M.D.

Drs. Carrington; Sladowsky and Barbo; Sladowsky, Titon, Gabrielson and Cox; Clifford; Pike; Eskin; Loveland; Batzer; Cox; Weinblatt; Turner and LaHom; Luna and Songkoon Tongprasert.





Dr. Cox orients the juniors in the basic delivery techniques; Dr. Gabrielson explains family planning alternatives; Chairwoman Carrington and Neonatologists Blackburn and Pleasure conduct High Risk Pregnancy Seminars.

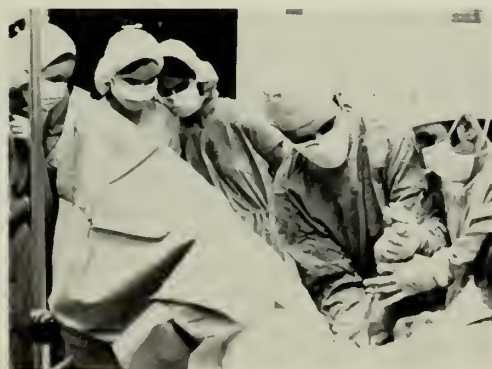
Patients for Gynecology Clinic were seen by students, house-staff and attendings at the Barton Dispensary in 1942.

"...the goal: to deliver a good baby to a healthy mother..."



Our objectives were "to become conversant with OB-GYN vocabulary; to understand the endocrinology of menstruation, reproduction and menopause; to know the physiology of normal pregnancy as well as how to diagnose and treat complications of pregnancy, labor, delivery and postpartum; to know the indications and alternative methods for family planning; to learn to take a history and perform a pelvic exam; to understand the treatment of and the diagnostic skills needed to detect infections and cancer; to demonstrate knowledge of and ability to perform a normal delivery..."

Juniors assist in surgery and experience the excitement of their first deliveries...



Pediatrics



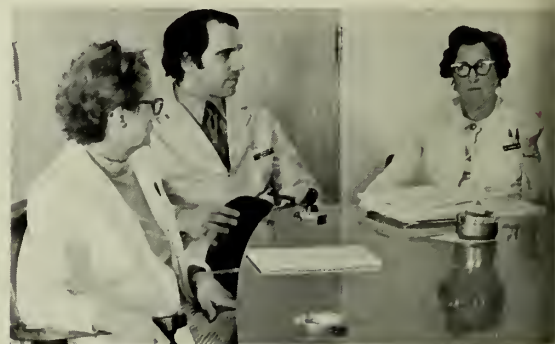
Dr. Doris A. Howell, former Chairman of Pediatrics, having watched a sunset with a child in the old building.



In March, 1931, the East Falls Hospital of the Woman's Medical College of Pa. was opened, including this cheerful children's solarium.

In 1850 a civilized man, while contemplating the status of children in society, could look back with satisfaction over the progress that had been made since ancient times when infanticide, child mutilation and child sacrifice were often the rule.

Yet the child born in 1850 still had dreadful enemies to face. If he had the misfortune to be born in the wrong neighborhood of many large American cities such as Boston, he still had only a 50-50 chance of living to the age of 10. A walk through an old cemetery will convince the skeptic that the situation was grim. Children often fell victim to pneumonia, tuberculous, meningitis, poliomyelitis, intestinal hemorrhage of the newborn, typhoid, cholera and "summer complaint," a nearly always fatal infantile diarrhea that was contracted from unsterilized milk. Poor nutrition contributed to the prevalence of the above diseases, and also directly caused much scurvy, pellagra, rickets and "nutritional edema."



Dr. Waldo Nelson, author of the famous book, leaves one of his weekly MCP seminars. Dr. Jean Gowing in 1962 explains baby care to a new mother. Drs. Harriet Arey, Jerold Aronson and Hammond in conference.

If a baby managed to survive his infancy and early childhood, he might then enter the labor force and be among many children who into the 1920's could be found working long and hard hours in "sweat shops" for meager wages.

As a specialty, pediatrics was a late-developer. By the mid-Nineteenth Century the study of diseases unique to children was well underway in Europe. In 1855, the first children's Hospital was opened in the United States, in Philadelphia. Progress in the study of sick children was impeded by the fact that young children cannot communicate verbally, and prior to the development of present-day laboratory, radiographic and mechanical means of probing the workings of the body, physicians relied heavily on questioning the patient. Therefore, many children died of "unknown causes".



The Junior Pediatrics rotation is 6 weeks long and includes in-patient care with night call, clinic time, emergency room care and a week in neonatology in the nursery. Here junior Angela Stupi examines a young asthmatic.

Besides the characterizing of children's diseases with a new emphasis on correlating pathology with symptoms, early "pediatrists" were concerned with dispelling myriads of myths and opposing such commonly prevalent practices as "swaddling," drinking unsterile milk, and excessive cradle-rocking.

The 1870's saw the formation of The Society for the Prevention of Cruelty to Children, and the establishment by the A.M.A. of a section for the diseases of children. It was not until the end of the Nineteenth Century that Pediatrics was a recognized specialty in the U.S.A.

In 1893 "clean milk stations" for the distribution of sterile milk for babies began to be established. These were the predecessors of "well baby clinics," typified by the W.M.C. Clinic in the Barton Dispensary on Ridge Avenue. Around 1900, the inspection of school children for signs of infectious diseases began. This was the beginning of school health systems.

Nineteen-twelve saw the establishment by Congress of The United States Children's Bureau, whose job it was to report to Congress on conditions affecting children. In 1921 this bureau began giving grants-in-aid, and set the precedent for grants to programs relating to maternal and child health such as aid to handicapped and retarded children, and to child welfare agencies. This program has mushroomed into the present system of M.I.C. programs (maternal and infant care) in our Ob-Gyn. and Pediatrics clinics and into the Pennsylvania D.P.A. (welfare) and P.G.S. programs.



Drs. Gold, Schrom and Steg. Pediatrics resident Sheth with a young patient.



Dr. Rita Scott explains developmental problems.



Dr. Phyllis Marciano busy in clinic.



Resident Rahimian in hallway.

In recent years the problems facing Pediatricians have reflected the progress made in fighting children's diseases. Death rates for the first year of life have plummeted downward since 1900 when one of five children died before 12 months of age, to 1975 when many families have never experienced the death of a child or known it to occur in their circle of friends. Thus, preventive and outpatient well-child care have assumed a major role in pediatrics.

Unfortunately, the plunge in the death rates for the first 7 days of life has not been as impressive as that for the first year of life. This challenge has been part of the impetus for the study of neonatology. Many of the neonate's problems such as congenital malformations and immaturity originate before birth. They require a deep understanding of the physiology and pathology of both mother and fetus and their interaction with disease, the environment, toxic substances, and nutrition.

In spite of these continuing challenges to the Pediatrician, one can look at the newborn child of 1975 and honestly say, "You've come a long way, Baby!"

Respectfully submitted,
Priscilla Benner, M.D.



The oldest and time-honored form of outpatient pediatrics has been the "house call" depicted in this 1840 sketch "The Country Doctor". For Dr. Hill (W.M.C.) in 1949 in Oneida, Wisconsin, a kitchen examining room provided a personal approach.



The clean milk centers of the 1890's became the well-baby clinics of the 1900's. At left we see the 1916 World War I Baby Clinic of W.M.C. located near the College on North College Avenue. Note the costumes as well as the "Victory Garden" poster on the wall appealing to the mothers.

After the College itself had moved in 1931 to East Falls, the Barton Dispensary was opened at 4253 Ridge Avenue (across from the Fire Station) for pediatric and obstetric care. The 1942 picture above shows two medical students examining babies under the supervision of Dr. Lee Winston.



Out-Patient Pediatrics



ABOVE: Many of the East Falls P.G.S. Satellite Clinic's young participants wave outside its location in the East Falls Project school building. This program has been run under the guidance of Dr. J. Aronson and serves infants as well as older children.

LEFT: The M.C.P. Clinic is a busy place! Here we see Drs. Vera Malisoff, Estelle Gold, and Jean Gowing examining young children. Their "special interests" are allergy, dermatology, and adolescent medicine, respectively.

BELOW: A young doctor examines a surprised little lady in the P.G.S. Clinic.



Thousands of youngsters are cared for by MCP's P.G.S. (pediatrics group services) federally-assisted program. This includes the M.C.P. Clinic as well as three satellites: The East Falls Project, Abbotts Ford Project and The Learning Center. They are unique in that they involve many members of the health care team: nurses, students, pediatric nurse practitioners, physicians, and specialists of all types.

Probably the thing we students best remember is the green-covered problem-oriented (modified Weed) record with the yellow tick-off sheet for routine screening, testing and immunizations and the ever-present Denver Development Sheet.

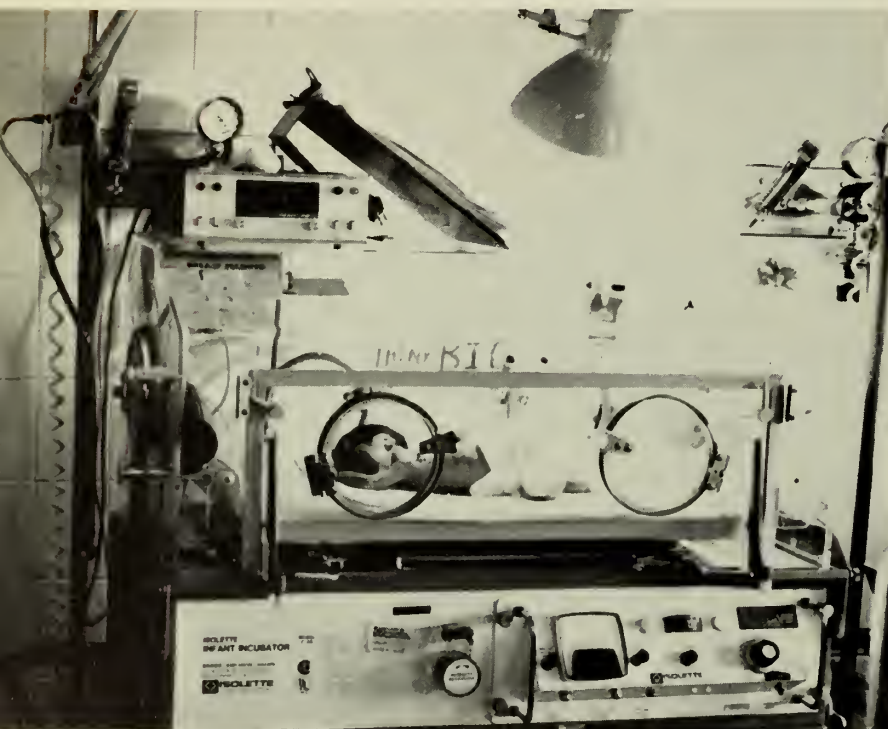
Neonatology Nursery

Drs. Blackburn and Pleasure (not pictured) lead the way to sophisticated neonatology at MCP. Their arrangements have included ambulance and helicopter transportation for high-risk nursery cases from outlying hospitals.



The above picture was entitled "New Life Gets a Good Start" in 1942. This was a way of quieting the babies (or the nurses' nerves?) in the "Sound Proof Nursery." In the '70's, Japanese studies have suggested that playing a heart-beat record in a nursery quiets the children.

Resident Claire Cifaloglio explains the neonatal examination to a nurse and students Pam Scott and Laila Alidina.



The smaller the head — the bigger the dream

Austin O'Malley



T.L.C. The Learning Center

In one of the units are the children of med students Evelyn Weissman, Stuart Genser, and Sue Benes.

36 C family food fashions furnishings

THE NEW YORK TIMES, FRIDAY, JANUARY 24, 1975

When a Price Soars, Oil Is Often Reason

By ENID NIMY

The supermarket shopper this month paid \$1.25 for laundry detergent, 63 cents for a box of plastic garbage bags, 85 cents for a box of plastic garbage bags, six months ago, the same size, of the same brand, at the same supermarket, was 20 to 25 per cent cheaper.

Almost all prices have gone up (the consumer price index rose by 12.2 per cent for all of 1974), but why the somewhat phenomenal increase in the prices of certain products?

There isn't one single reason, but chances are, when the rise has been substantial, that some of the major ingredients of the products are based on petrochemicals.

About five per cent of the nation's crude oil, and 10 per cent of its natural gas, go into the manufacture of petrochemicals. The petrochemicals that are produced—ethylene, propylene, benzene, naphthalene, ammonia, methanol and acetylene—are largely unknown to consumers, but they are the basis for man-made materials.

"From the time we get up in the morning and brush our teeth with a plastic toothbrush, and wash our face with a man-made detergent, until we go to bed at night and pull up our permanent-press sheets and synthetic blankets, we are surrounded by petrochemicals," said Richard C. Perry, an executive of Union Carbide Corporation.

"Sit down and look at the things around you," said Roy Glauz of the Stanford Research Institute in Menlo Park, Calif.

Things Used Every Day

Mr. Glauz, who was interviewed by telephone in his office, listed some of the plastic items surrounding him.

"The telephone set, my slide rule, my calculator, my eyeglass frames. . . and I could go on and on," he said.

Mr. Glauz, who is with the Chemical Industry Center of the institute, said that any rise in oil prices or tariffs would have much wider ramifications for consumers than merely higher costs for gasoline and heating fuels.

"Most people don't realize how tied up we are with the chemical industry," he said. "The plastic the carrots are wrapped in, the plastic coating on milk

was fierce—prices were driven down to a very low level, and there was not enough money to undertake expansion. That was the period used for base price control and we were loosed into it."

"The days of cheap plastics and chemical products are over," said a spokesman for an association that relies heavily on petrochemicals.

"We agree with the Shah of Iran that petroleum is too noble a resource to be burned for fuel," said a representative of the Petrochemical Energy Group, a group of companies in the industry. He noted that companies manufacturing man-made materials sell more than \$2.0 billion worth of products each year and employ more than 315,000 people.

"Man-made materials are essential to modern life," he added.

The belief that man-made materials are, indeed, essential to modern life has been frequently questioned. Some people are in favor of, or see nothing against, returning in the natural materials in use before synthetics appeared on the horizon.

But, according to Mr. Perry of Union Carbide, "natural products are in extremely short supply and getting shorter all the time."

"There are too many people in the world today to be supported by natural products," he said. "There are not enough trees, we cannot raise enough sheep and there wouldn't be enough animals for soap. Wood products, paper, metals and other natural product industries already are hard pressed just trying to keep up with the demands of their own customers, let alone trying to take over those needs now filled by man-made materials. Furthermore, prices of natural products are rising at a much faster clip than those of the petrochemical industry."

Federal Government figures indicate that the price of cardboard containers went up 41 per cent last year, tin and aluminum cans increased by 37 per cent, glass containers by 16 per cent.

The Friends of the Earth, a 27,000-member national conservation group based in Washington, dispute at least some of Mr. Perry's premise.

"We could increase the utilization of our trees," said Cass Green, a recent



Douglas Sauber, Eleanor Rainey are "Care-givers" for Amy Tomlinson, 8 months; Ray Brabban, 2; Kevin Boyer, 1; Tayon Wynder

PARENTS/CHILDREN

Day Care Center That Tries to Be Like a Family

By RICHARD FLASTE

Special to The New York Times

PHILADELPHIA — Despite the continuing dissolution of the family from extended to nuclear — with even that atom frequently split into the smaller, single-parent unit — most people still cling to the belief that the family is the best child-rearing institution we have. That belief pervades an unusual day care center here.

The Learning Center of the Medical College of Pennsylvania has three day care classes, each set up to resemble a family—not to replace it but to supply a kind of nur-

series for the child who comes from a fatherless home or one in which the parents have little time for him (half the children are from the low-income community around the school and half are from the middle-class backgrounds of students at the medical college).

Miss Weinstein said the range in the classes gives the children the sense that "they were babies once, they're not now and will be like the older children someday." She said it also allows the children to form groups according to their developmental

level. There is occasional sibling rivalry, which develops even among children who aren't related. It happens, for instance, when a new infant is brought into a group, and another child, once the youngest, now must move up the ladder a bit.

"There's some hitting going on and some adjusting to do," Miss Weinstein said, "just as when a child gets a new brother or sister." The most intense attention is necessarily given to the infants, some of whom arrive at the center when they are only a few weeks old. One adult is designated as "primary care-

giver" for each child, and the floor, of course, but the thought that counts. One problem the staff perceived never did materialize. They thought it would be necessary to organize per when children could only with others of their age. It turns out that the youngsters want to do that, they do, will prompt.

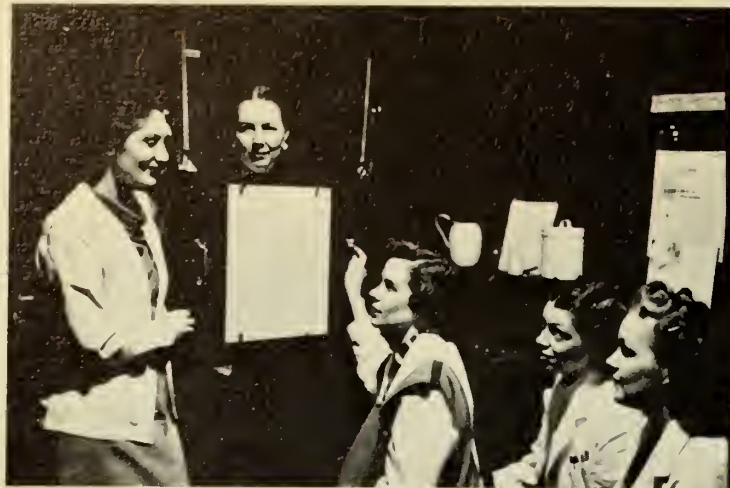
The teachers say they don't think of themselves as substitute parents. Douglas Sauber, a 24-year-old for carpenter, bag-maker, psychology student, was 1 on that point.

He was sprawled out on the floor, of course, but the thought that counts. One problem the staff perceived never did materialize. They thought it would be necessary to organize per when children could only with others of their age. It turns out that the youngsters want to do that, they do, will prompt.

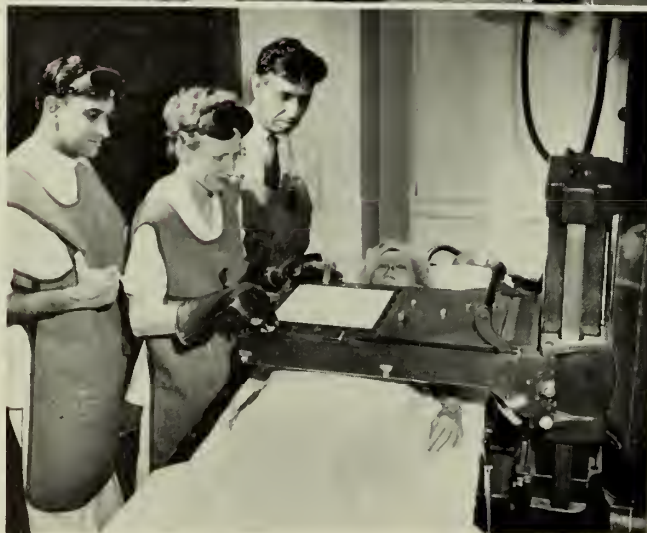
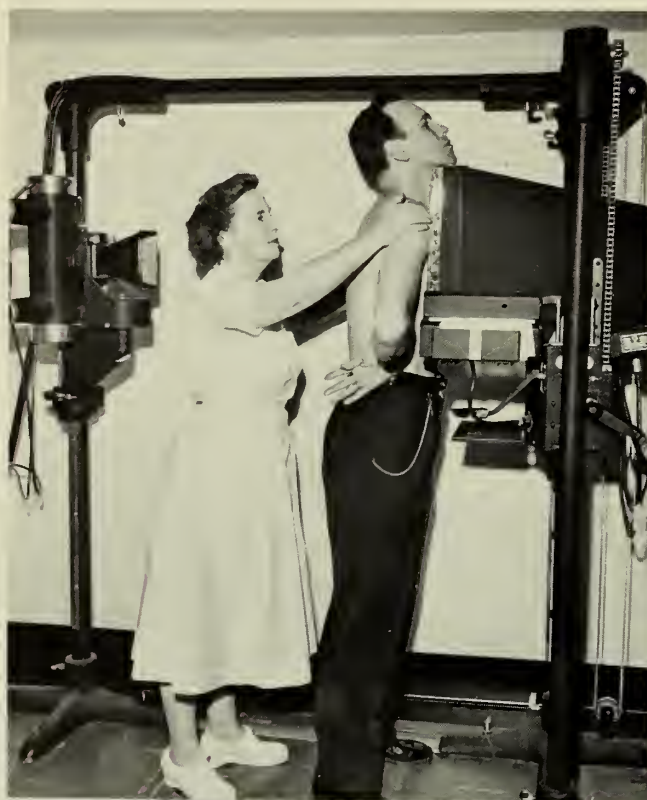
ABOVE: An article about T.L.C. appeared in The New York Times on Friday, January 24, 1975.

LEFT: Susan Aronson, M.D., the P.G.S. physician and co-founder of T.L.C. reviews a child's record in "The Muscle Room", basement gross-motor play area.





20 years ago the medical students (above) observed radiology and fluoroscopy with lead aprons just as we do today. At right Seniors Joye and Levy study films in the residents' room; Senior Gail Kaufman discusses abdominal films on the rotating viewbox and Juniors make afternoon rounds on their patients, seeing the U.G.I. done that morning.



Radiologic and

The mysteries of electromagnetic radiation excited the world as W.M.C. approached her 50th birthday. In 1895 Roentgen had discovered x-rays; in 1896 Becquerel described the concepts of ray emission and fluorescence; and in 1898 Madame and Pierre Curie discovered radium as they were studying pitchblende to find out why it gave off 4 times more "Becquerel rays" than could be accounted for by its uranium content. With her genius Madame went on to obtain the free element by 1910. By 1933, Marie's daughter Irene Joliot was using cyclotron-accelerated alpha particles (Rutherford, 1899) to bombard nuclei, and she discovered that these nuclear transmutants could themselves be radioactive . . . the beginning of the radioisotope era!

The medical world quickly grasped these concepts to assist with anatomic correlations. Becquerel's photographic plates bore beautiful images of his hands in the uranium salts. Soon fluoroscopy was possible, then pneumoencephalography (1918), myelography (1922), and angiography (1927). Diagnostic radiology grew quickly, and by the mid-1950's W.M.C. was participating in the growth. A W.M.C. alumna of 1940, Lucy Frank Squire, has written a book used by countless students of radiology across the country.

One spin-off of the terrifying scientific atomic advances of World War II was the addition of radioisotopes to the physician's armamentarium. These were initially used only for thyroid, bone and blood volume studies. Now the technique for labelling is applicable to more than just the original heavy metals and differ-

The equipment at M.C.P. in 1955 (left) probably delivered more radiation to the patient and technician than the more shielded equipment of today. Note the protective goggles and gloves and the lack of the A.E.C. monitoring tags now required.





Dr. Eva Fox, chairman of radiology, leads a department deemed by most students as excellent—educationally, technically, and in terms of “keeping up”. Under her guidance countless changes have been instituted. BELOW, we see her in her 1950 role as hospital medical director with former director Dr. Ellen Potter.



Nuclear Medicine

Small-sized molecules may be tagged to yield information specific to organ functions. For example, some substances are specific for glomerular filtration, some for tubular secretion or reabsorption, some for liver reticuloendothelial activity and some for hepatocellular function. The final sophistication, seen at M.C.P. since 1971, has been the addition of flow and time studies, with computer analyses.

Finally, radiotherapy (in use since the 1950's) has also progressed from its original “skin-deep” 5 mm. orthovoltage days. Now megavoltage sources, accelerated nuclear particles and computerized rotational fields provide deeper, more specific therapy with fewer side-effects.

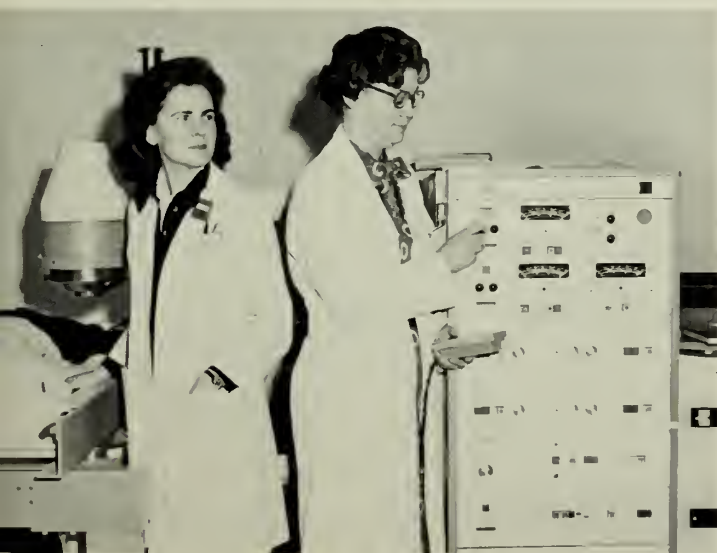
And—proudly—we can say M.C.P. has kept up with all of this and more.

S. C. Benes



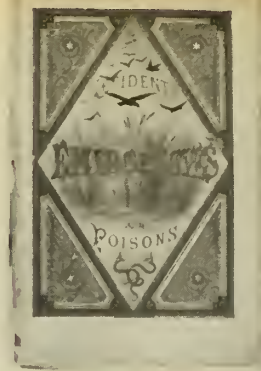
An outstanding feature of the radiology department is the dedication to teaching seen at both the faculty and resident levels. Special studies and arteriography are Dr. George Popky's forte; he has even devised closed-circuit TV methods of teaching them. Residents Barb Schlager and Maria Ross are also creative teachers.

Combining the genius of Physicist Dr. George (below, far left) and that of Dr. Janet Parker (below, right) has produced a busy, successful, and research-oriented joint division of Radiotherapy and Nuclear Medicine. In terms of instrumental sophistication alone, this is probably one of the most advanced areas of M.C.P. The oft-feared computer has become one of their most powerful medical tools, assisting them with designing personalized and rotating portals for radiotherapy as well as analyzing more functional spatial-density-time change relationships for the originally anatomic nuclear scans.



Emergency Acute Care Medicine

This tiny 1875 handbook described treatments for asphyxiation from "sulphureted hydrogen in privies," poisonings (stomach-pump and mustard emetics), drownings (Sylvester's Ready Method), and many other maladies.



A system of emergency health care and transportation (including ambulances) began in warfare. Primitive two-wheeled carts first carried victims to doctors, medics or nurses in field-hospitals. As more information was accrued physicians educated lay persons at home in the general concepts of "first aid"; this form of care was not intended to be definitive but only to temporize while either transportation to or the arrival of more sophisticated help occurred. By 1915 U.S. "ambulances" were modified milk carts or hearses (see above) lighted inside by oil lamps. This emergency call victim was accompanied to the Barton Dispensary of W.M.C. on Washington Avenue by a nurse (left) and woman intern (right with the hat) around 1915.



l to r: Drs. Miriam Bell, Marcia Smith, and Mary Brown (c. 1920) portray the female "contract surgeons" who in WWI provided emergency care on the battlefields.



Acute care residents like Gretchen and Harvey Silverman, Bill Garrett, and Jeff Sullivan (above) actively participate in cardiopulmonary resuscitation efforts. Dr. Wagner is seen (lower right) teaching casting techniques.



Resident Cathy McCoy was on the front page for her role in saving one of our numerous policeman casualties.



The Emergency Care program at MCP has received much publicity. It was described in *The New Physician* as a first in the new kind of residency program geared toward excellence in primary care. The nationwide emergency services advances of the late 1960's brought the cardiac technology and equipment of the medical centers to the "out-house" component of the system — the ambulance vehicles. With this greater lay-worker sophistication it is essential to have physicians whose main roles are to coordinate the in and out-patient emergency services. Dr. Wagner has tailored our program to prepare physicians for that role. The residents spend time in the Emergency Room, cardiology, the Intensive Care Unit, Pediatrics, Orthopedics, Surgery, the Wills Eye Emergency Room, etc. and are encouraged to take "chief resident" responsibilities for organizational experience. Now similar programs are appearing across the U.S.A.

Psychiatry

Robert Riggs (American)
Psychopathic Ward, 1945



The word Psychiatry is from the Greek psyche (mind) and iatreia (healing). There is a tale in Greek mythology about Psyche, a beautiful maiden who represented the personification of the human soul. Because of her beauty the goddess Venus was jealous and sent Cupid (Eros, or love) to make Psyche fall in love with an ugly mortal. Instead, Cupid fell in love with Psyche, she was able to accomplish the super human tasks enforced by Venus, and Cupid and Psyche became immortal and dwelt in heaven together.

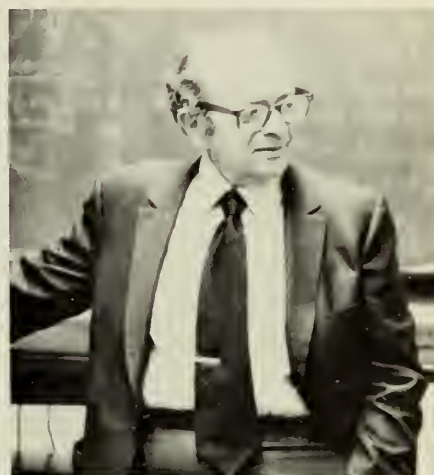
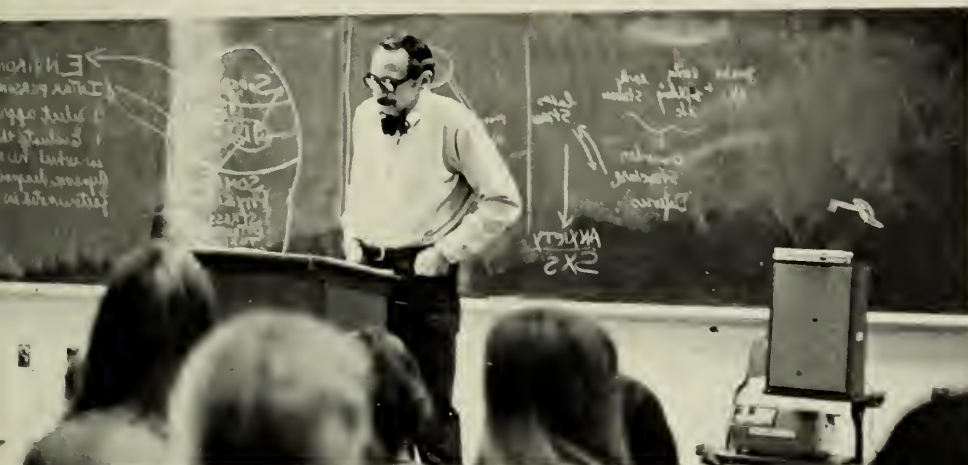
The history of psychiatry is not so beautiful; it is filled with centuries of drama, passions, fanatic prejudice and fear and cruel prosecutions. People suffering from mental illness were not recognized as sick people but were feared and accused of associations with devils and demons. They were persecuted without mercy or burned at the stake as recently as the 1700's. At that time a French man painted "Le Medecin Guarillant Phantafie" depicting the physician's role in purging all fantasies by administering boiling oral cathartics, performing trephination or sliding a "patient" head-first into a heated oven to force out the memories and follies in the heat. A 1798 painting by George M. Woodward depicted a physician as

less a hero but rather a prostitute to his drinking friends, a skeleton (or death) and the devil (insanity).

Even in the United States the mentally ill were degraded. In the 1700's we burned and dunked our witches. Later we were more "sophisticated" and merely locked them up in prison-like inhuman conditions. It is interesting to note that by 1852 in Philadelphia the mental asylum patients were still such lowly second-class non-citizens that most male physicians would not waste their time treating them. In that year the first woman M.D.'s from our college unsuccessfully sought internships in the male-predominated teaching hospitals and were counselled to "attend the mentally ill if you desire experience". This was one of the reasons why several of the early woman M.D.'s did postgraduate work in Europe and why a hospital was added next to our own school in the 1860's.

It was not until 1893 when Joseph Breuer and Sigmund Freud observed that a forgotten or repressed emotional experience could cause mental illness that the mentally ill became dignified as "sick persons". Modern psychiatry had begun.

S. Benes



CONFLICT

Drs. Snow; Madow, Baum, Snow and Kramer; Leaff and O'Brien; Baum lecturing; Wenger; 1949 student studying neuroanatomical relations; Dr. Feldman; Dr. Bulette; and outdoor Psychiatry Conference in the 1960's.





The Unforgettable V.A.H.

Dr. Pat Bell and her patient in the halls of the V.A. Hospital; Drs. Myerson and Boland; Dr. Williams in Radiology.





Mrs. and President Slater; Mrs. Bruger, Chairman of Board; Dr. Segal, former President; Drs. Ries, Shemonsky, Jordan, Cranston.



Associate Dean Dr. Hartman; Assistant Dr. Beasley; Office for Student Affairs Marlene and Lorna.



The Powers and Voices That Be...

Dr. Lambert, Medical Director; Mrs. Loser, Registrar; Dr. Weinberg, Associate Dean.

Anne Insinger, Director Public Relations; Dr. Nina Woodside, Director C.W.I.M.; Mr. Biddle, Financial Aid; Page Operator!



SKIT NITE 1975



During intermission refreshments were served in the lobby of the Pickett School Auditorium on Cheltenham Avenue. The Junior tribute to Dr. Lee Winston and faculty skit by Dr. Dubin were yet to come, while the second place sophomore parodies of Drs. Mansukhani and bubbly Bartuska were fresh in our minds.

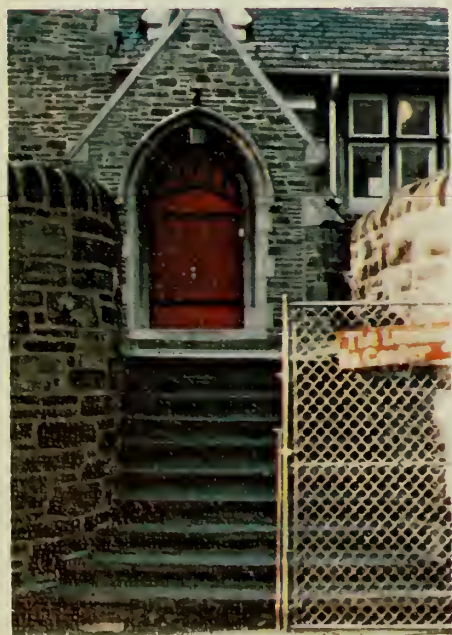


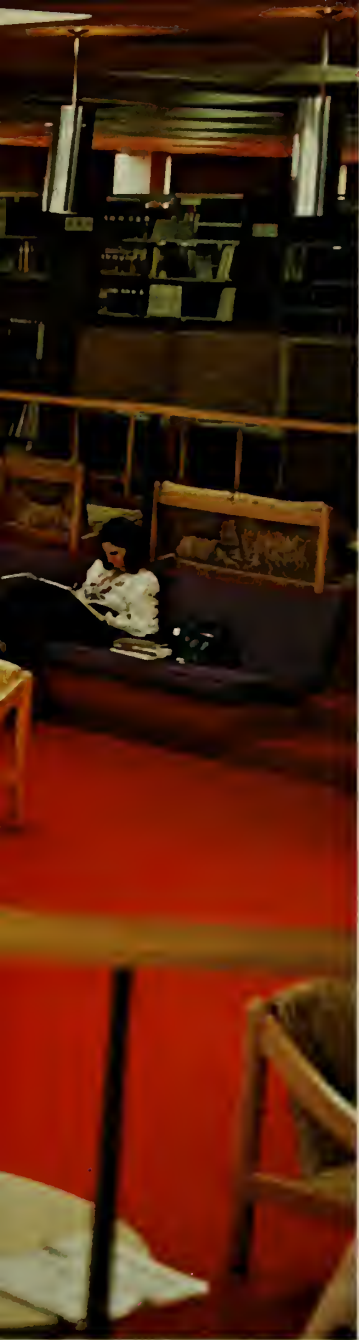
Skit Nites past appear to have been as tongue-in-cheek as ours have been. Twenty years ago Juniors felt they were treated too much like school children and not allowed to be individuals. That year Seniors must not have attended CPC's too regularly, either!



Traditionally first-place, Seniors of 1975 commented on the disjointed and sometimes conflicting consultant roundsmanship approach to the patient, on the various extremes necessary to "Get It If You Really Want It", on the reasons why many of our women classmates waited til they were older to enter medicine, on the influx of American foreign medical students into our class "team", and on the need "To have Friends" to make it through medical school and life.







WMC IN THE NEWS: 1967 – Philadelphia Inquirer; 1964 – The Sunday Bulletin; 1969 – International Surgery Bulletin; 1962 – The New York Times; 1963 – Boston Herald; 1967 – National Business Woman; 1948 – Saturday Evening Post; 1967 – Time; 1950 – Independent Woman; 1953 – New York Herald Tribune; 1953 – Charm Magazine; 1928 – The Saturday Evening Post; 1967 – Good Housekeeping; 1950 – The Philadelphia Inquirer.



Medical College
Pennsylvania
1975







Today the college
has many faces . . .



PHILADELPHIA U.S.A. 1974-1975

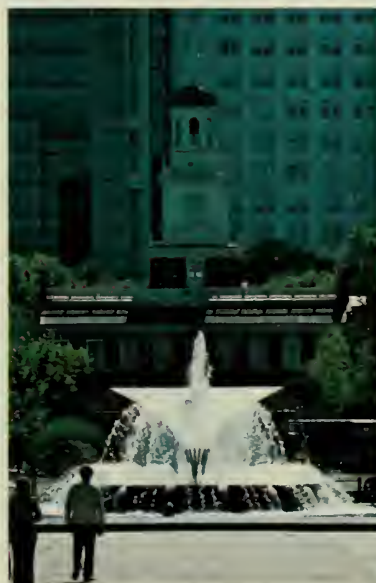
Preparation for the U.S. Bicentennial celebration . . . crew teams on the Schuylkill continue to be popular while hockey grows in popularity and the Flyers win a second Stanley cup . . .

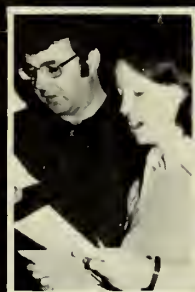


... one president resigns because of governmental scandals... his successor takes over the battles against inflation, unemployment, crime and dwindling oil supplies... people wait in mile-long lines to get gasoline on their assigned days...

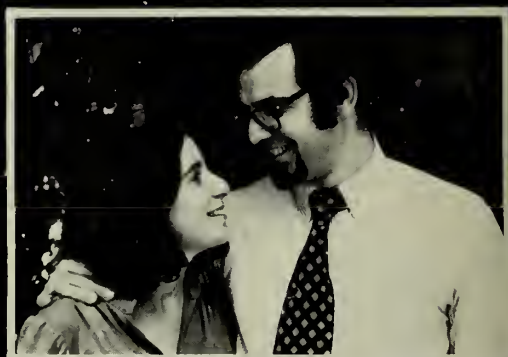
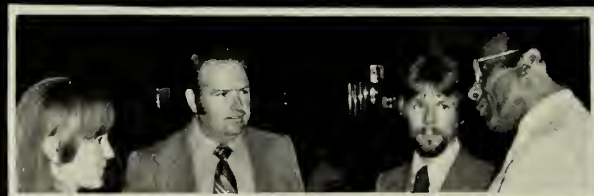
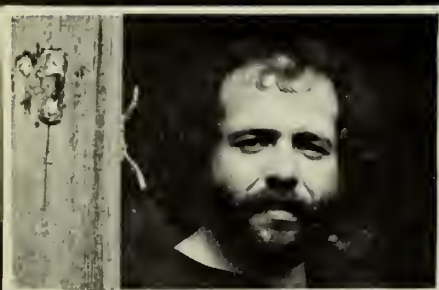


... South Viet Nam collapses and there is new dissension on the homefront about whether to accept Vietnamese refugees... MCP's Learning Center is portrayed in a New York Times article... and Medicine enters a new era of paranoia about lawsuits and expensive defensive medicine; housestaffs strike over long hours; and practicing physicians stage strikes and slow-downs protesting malpractice insurance premium increases as great as 700% in one year.





Class Of 1975





Remember . . .

Dr. Hartman getting the Golden Apple and telling us at orientation that "not ALL of your memories of these four years will be unhappy" and giving us the class profile . . . former teachers, engineers, nurses, nuns, administrators, pharmacists, housewives, students, Ph.D.s, researchers, physical therapists, belly dancers . . . bone boxes . . . Dr. Beasley assuring us that more men had fainted in gross lab than women and inviting us to the memorial service . . . when more than half the class failed the first biochem exam . . . Dr. Barnes and the quilt . . . Dr. Masoro falling into the wastebasket . . . Dr. Goldman and membrane potentials . . . Dr. Pennock explaining EKG's and getting the Rookie Award . . . chi square tests . . . Dr. Snow . . . Fred as Rhea . . . Frank telling "The Tale of Polypeptide" . . . tuition was \$2300 . . .



Freshman Year

Gross Anatomy
Biochemistry
Histology
Organology
Neuroanatomy
Embryology
Genetics
Physiology
Psychiatry
Biostatistics
Preventive Medicine
Clinical Electives
Basic Science Electives





Tuition increased to \$2,750 . . . standing room only for all lectures on the old second floor of the College Building . . . cultures, microscopes, rabbits, and interferon . . . Headstart II . . . public health projects and visits . . . hall-way coffee pot amidst the specimens . . . quizzes, quizzes, quizzes . . . Homogenus competing with Dr. Dubin for clever quips . . . studying in the old library . . . autopsies . . . Pharmacology's reign of terror and televised "experiments" . . . dog labs . . . interviewing patients for the first time in very bright white coats . . . examining one another first . . . E.P.P.I. . . Kathy Handal and others helping to organize the last Talent Nite and Art Show . . . the new Auditorium . . . painting cubbies for the new Learning Center . . . Skit Night and turbans with Mansukhani and incense . . . Golden Apple to Dr. Norma Vincent as she resigns . . . curriculum change controversies and our first unanimous vote (no) . . . the Junior Lottery . . . Part One of the National Boards . . . anxiety and frustration . . . sitting . . .

Sophomore Year

Microbiology
Epidemiology
Pathology
Autopsies
Genetics
Pathology
Pharmacology
Psychiatry
I.C.L.M.





Tuition passes \$3,000 . . . 21 transfer students join our class from American 2-year, foreign, and osteopathic medical schools . . . our class becomes one-third male . . . only one-half day of lectures per week . . . the V.A.H. . . . introducing ourselves as "doctor" with ease . . . attending rounds, starting IV's and drawing blood, night call, EKG's, work-ups, presenting and following "our patients" to Dr. Kaye and tutors . . . learning to scrub, to suture, to deliver babies . . . problem-oriented records in clinic . . . oral exams . . . National Boards Part II . . . Skit Night includes a faculty-housestaff skit . . . a Golden Apple to Dr. Finnegan . . .



Junior Year

Medicine 9 weeks
Surgery 9 weeks
Ob/Gyn 6 weeks
Pediatrics 6 weeks
Psychiatry 6 weeks
Lectures in all
Medical and Surgical
Subspecialties
and in Nuclear Medicine



Junior
National
XAnthon



Match Day

The end of the world . . . the beginning of a new life. Tension, anxiety and excitement are reflected in the faces of this year's Seniors as they receive the computer read-outs from Dr. Hartman determining whether they will be residents in one of their top choice programs.



Orthopedics and dreams come true for Kathy McHale.



The Pre-Prohibition celebration of students in class of 1898 (Rachel Robbins), 1900 (Edith Cadwallader) and 1899 (Eloise Meek) was not too different from ours at Pete's Cafe.



Joe Romano opens his envelope and shares the news of his Internal Medicine residency while Maureen Lynch is ecstatic about going to Boston Children's.



The Deadly Nightshade



100 DAYS DINNER

good food, good
drink, good
music & dancing,
good friends . . .





SKIT NIGHT 1975



FRIENDS

Oh you've got to have friends
The feeling's oh so strong
You've got to have friends
To make that day last long . . .

Had some friends but they're gone . . .
Something came and took them away
And from the dusk til the dawn
here's where I will stay.

Standing at the end of the road, boys
Waiting for my new friends to come . . .
I don't care if I'm hungry or cold
I gotta get me some.

Cause you've got to have friends . . .





ALUM BANQUET

... A welcome from President Malisoff... Achievement Awards to Drs. Gowing and Bartuska... Dr. Dubin and a poem... "selling our charms"... the first event of graduation for the Class of 1975.



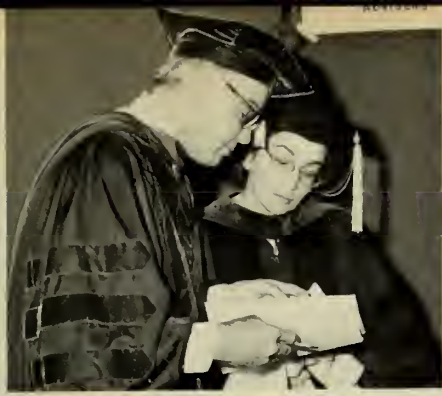
AWARD ASSEMBLY

President Slater and Associate Dean Bartuska preside... awards in Leadership, Internal Medicine, Obstetrics and Gynecology, Endocrinology, Wisdom in Leadership, Surgery, Outstanding Contribution to the School, General Excellence, Radiology, Pediatrics, and Outstanding Senior Year Achievement...



The Class of 1975





OATH

At this time, may I pledge myself to put into practice that for which I have been trained . . . the maintenance and protection of life. May I never be motivated by other than concern for the health of my patient and to this end, may I always strive to increase my knowledge and technical skills.

However, may I also be wary of my own humanity and strive to practice my profession with honesty and dignity. May my own shortcomings not be reflected in the care or interest I take in my patients and may bias and frustration not be a part of our relationship. In essence, may all patients regardless of race, politics, or social standing be regarded by me as a fellow brother in pain, for whom I will do as much as my training and knowledge allows.

Above all, may I do no harm.

Anonymous



Commencement 1975

MAY 24, 1975
IRVINE AUDITORIUM, PHILADELPHIA

. . . happy, proud families . . . Elisabeth Kubler-Ross speaking about the dying patient and how each of us can contribute in our lifetime . . . sweltering heat and long robes . . . messages from deans and presidents . . . faculty smiles . . . degrees and honors to alumnae, faculty, graduate and medical program graduates . . . pictures . . . Pomp and Circumstance . . . a moment of silence . . . an awe-inspiring OATH and new responsibility . . . a last time to be with some of our friends . . .





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102



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Guadalajara Escuela de
Medicina

University of California, Davis
Surgery



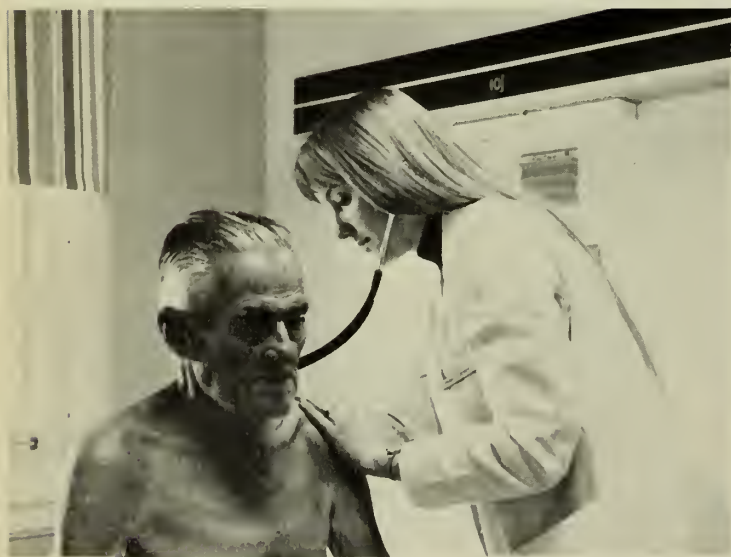
Susan Carleton Benes, M.D.

Chagrin Falls, Ohio

105

University of Michigan, B.S.
University of Keele,
Staffordshire, England
Teaching Certificate

Lankenau Hospital
(Medical Internship)
Will's Eye Hospital
(Ophthalmology Residency)



Priscilla J. Benner, M.D.

Finland, Pa.

Southern Connecticut State College

Allentown Hospital, Allentown, Pa.
Internal Medicine

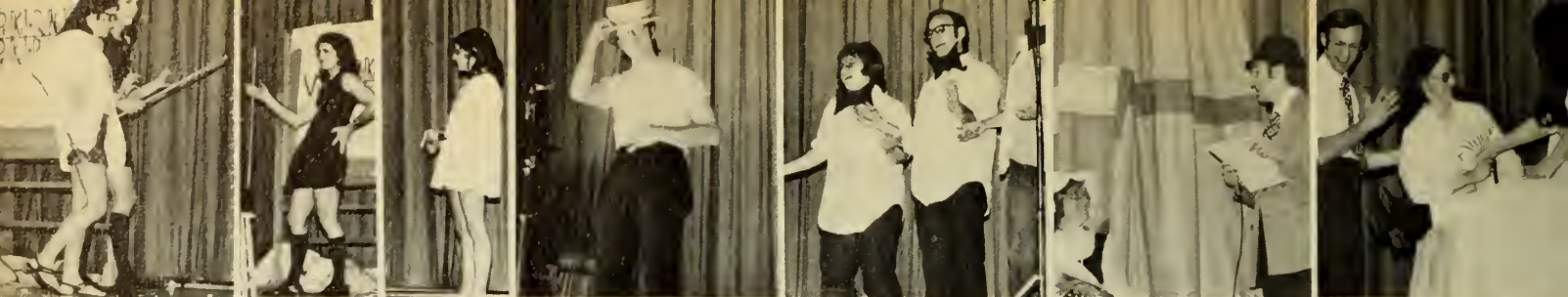


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Bethlehem, Pa.
Flexible Medical



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Springfield, Ma.
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School of Dental Surgery of
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Affiliated
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Graduate School, Ph.D.

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Detroit Ophthalmology
(Residency)



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121

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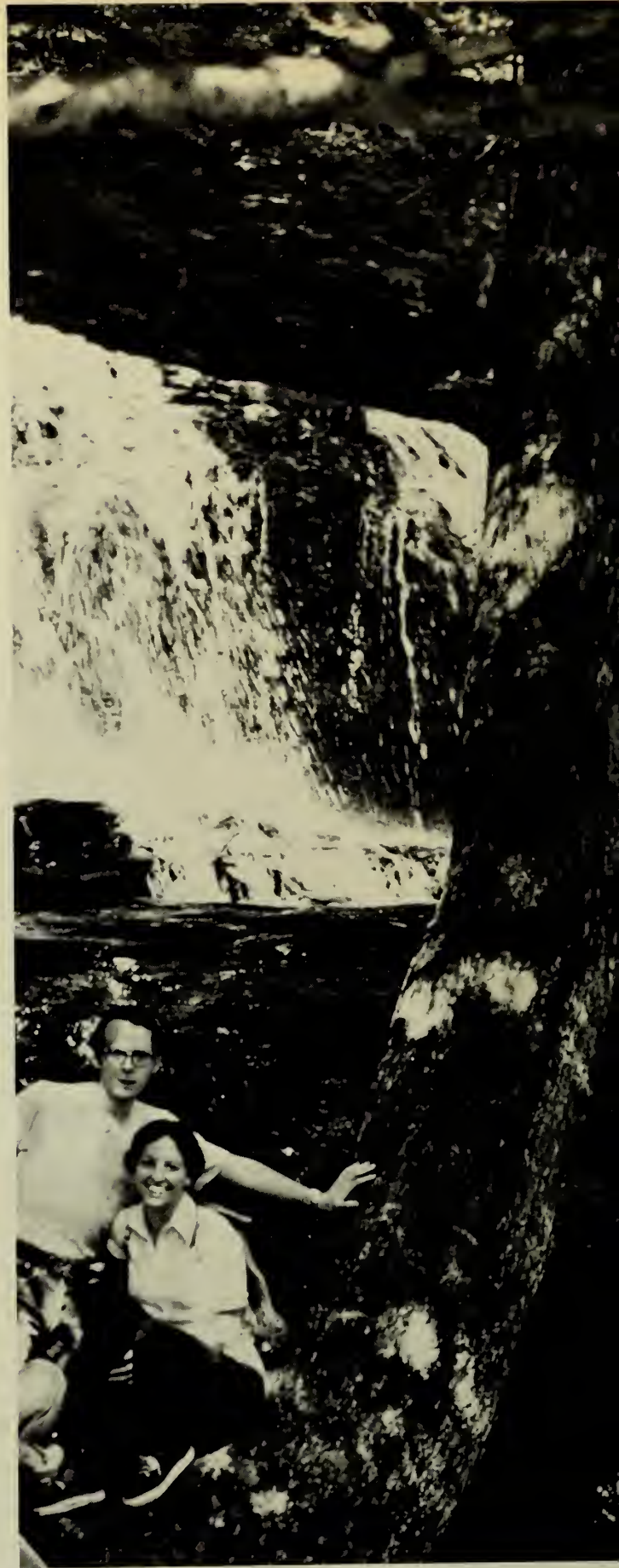


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134

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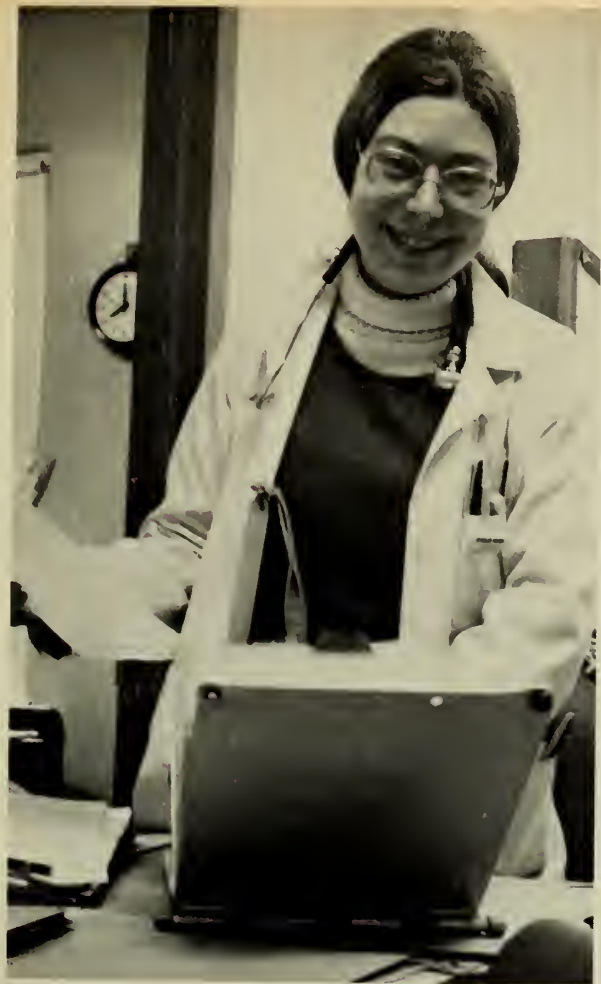


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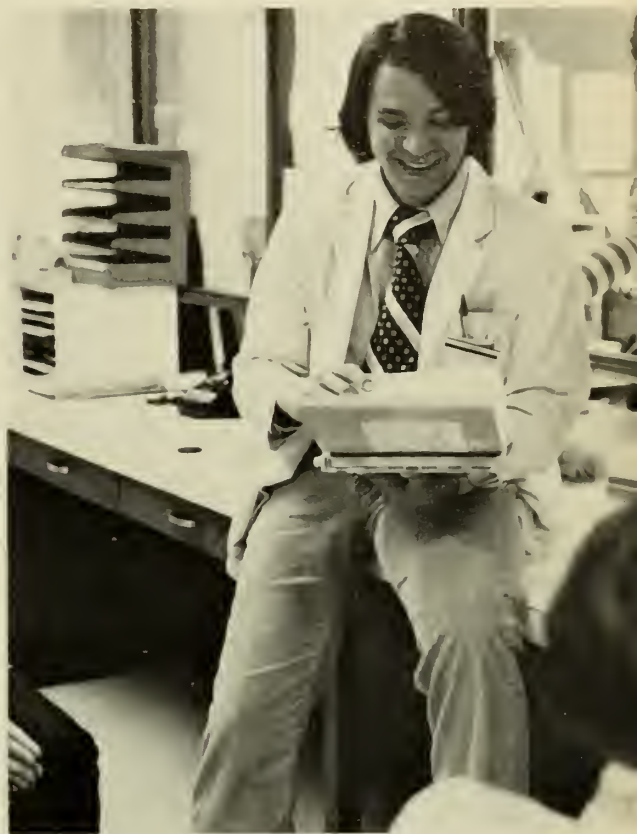


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George A. Poporad, M.D.

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Guadalajara Escuela de
Medicina

Case Western Reserve
Affiliated Hospitals
Cleveland, Ohio
Anesthesiology (Residency)

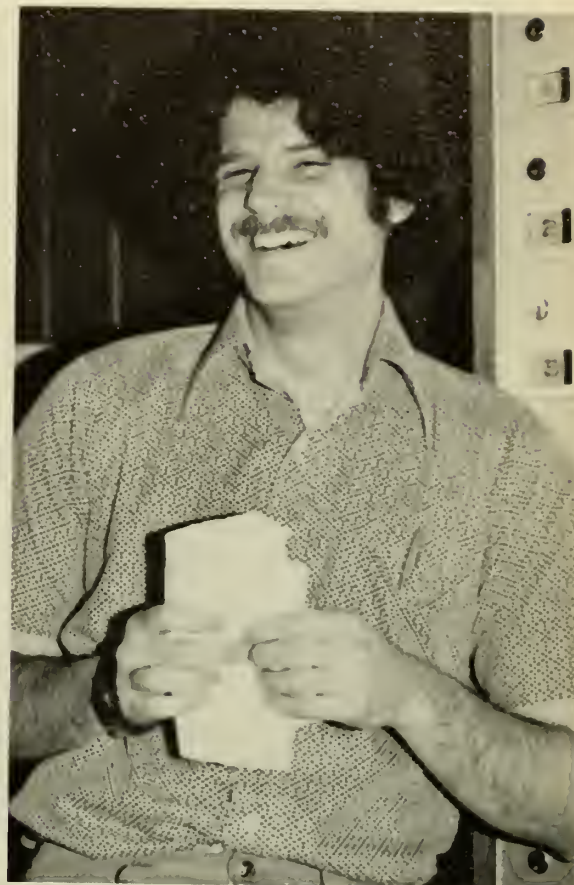


Asta Siebmanns Potter, M.D.

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Bridgeport Hospital,
Bridgeport, Conn.
Internal Medicine

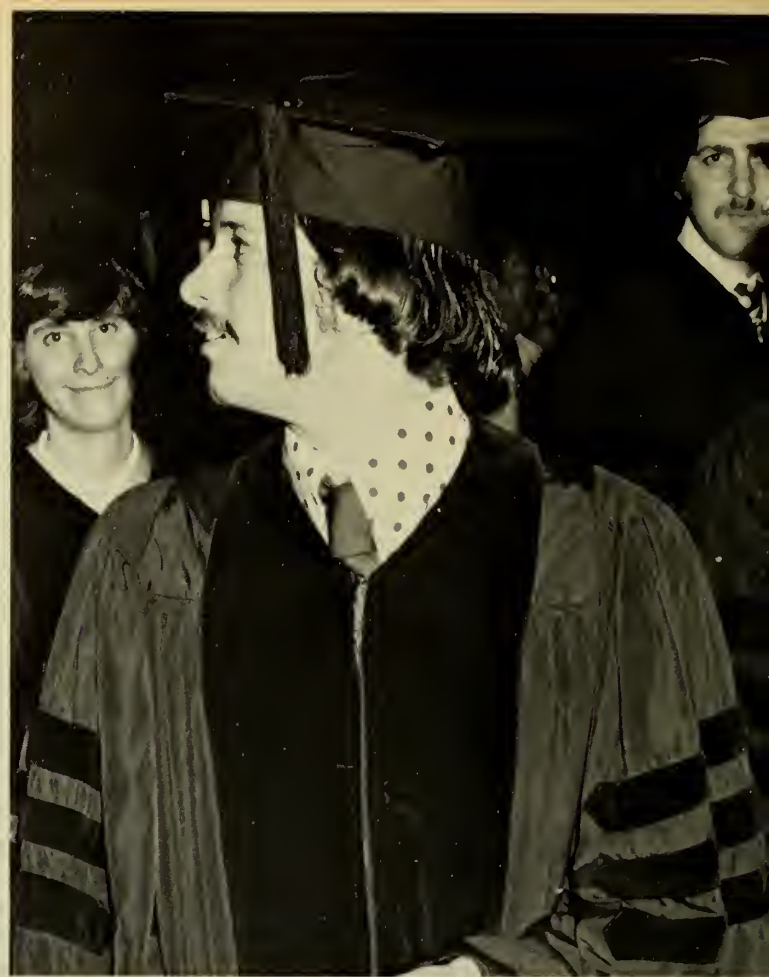


David M. Reingold, M.D.

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Queens College of C.U.N.Y., B.A.
The Faculty of Medicine and
Pharmacy of the Free
University of Brussels

Miriam Hospital.
Providence, Rhode Island
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Philadelphia, Pa.
Surgery



Rita Jones Robinson, M.D.

Camden, S. C.

Voorhees College, B.S.

Akron City Hospital, Akron, Ohio
Internal Medicine

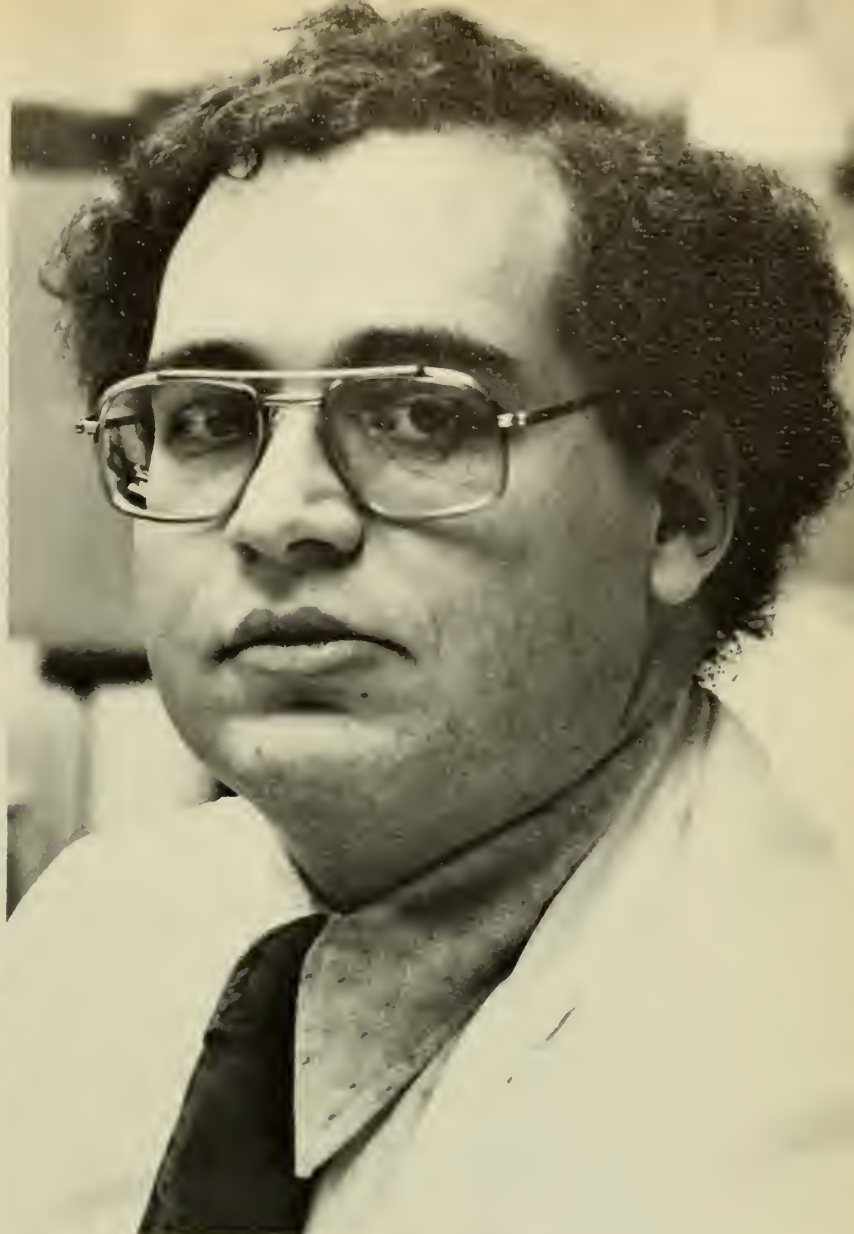


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Bronx, N. Y.

Simmons College, B.S.

University of New Mexico
Affiliated Hospitals,
Albuquerque, New Mexico
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— IN MEMORIAM —



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Phoenix, Arizona
Surgery



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Los Angeles,
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University of Hawaii
School of Medicine

University of Southern
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Los Angeles, Los Angeles, Calif.
Internal Medicine

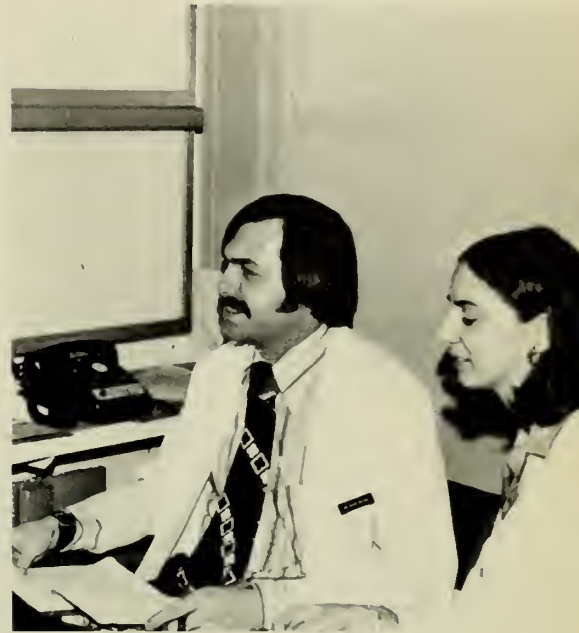
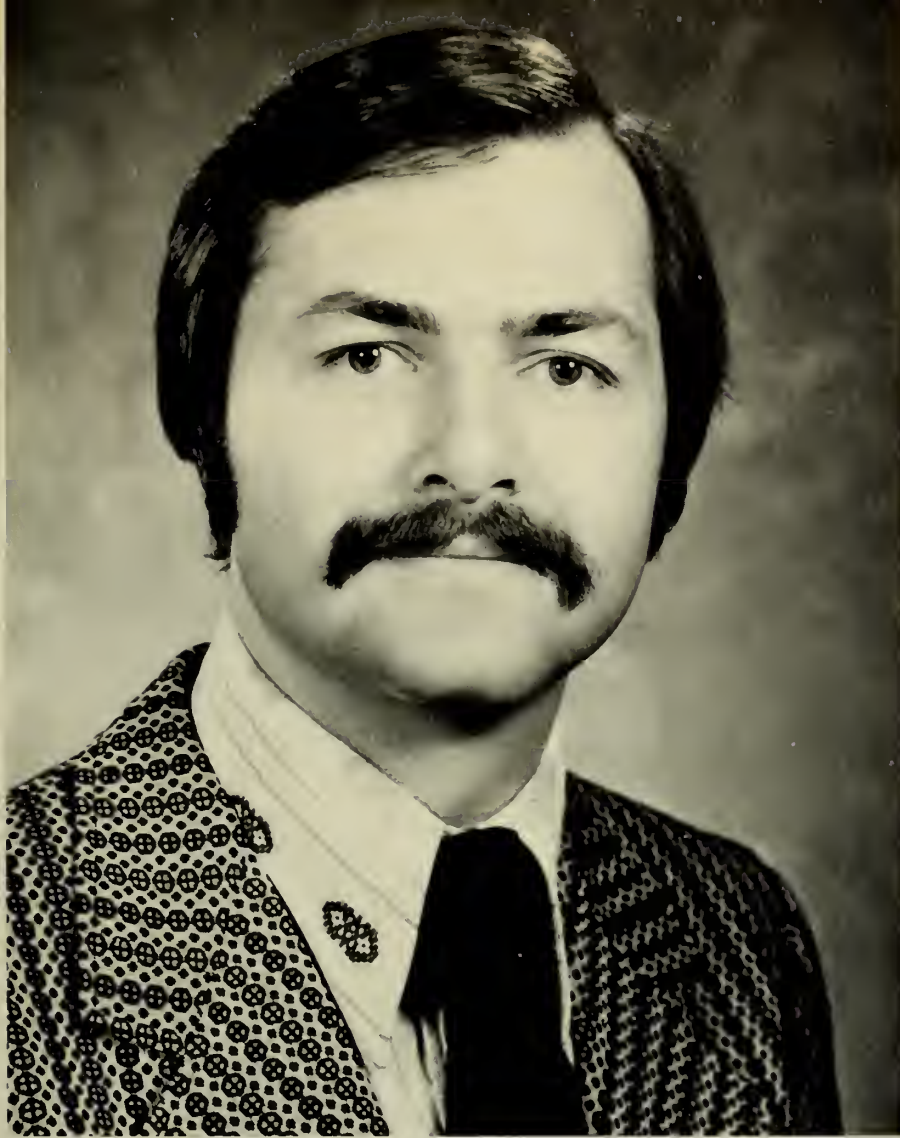


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Columbus, Ohio
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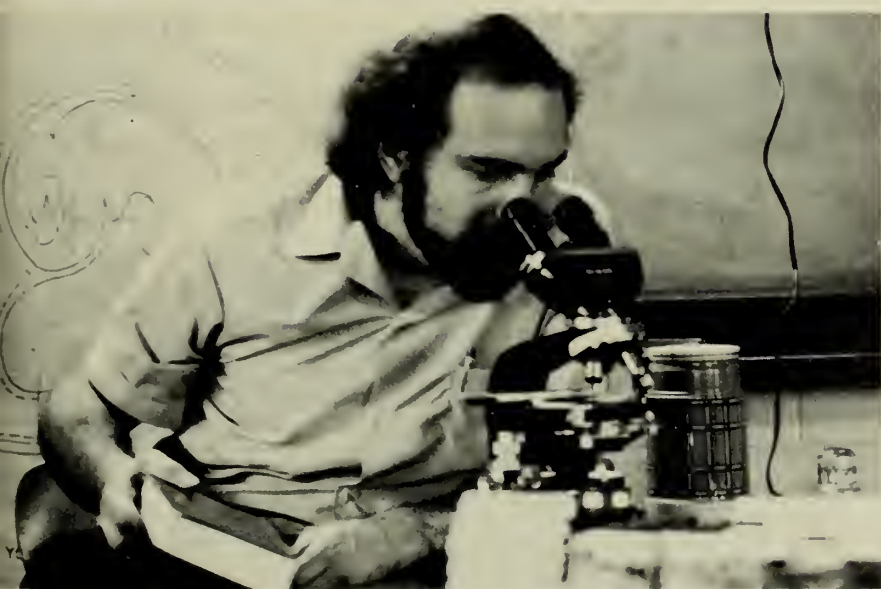
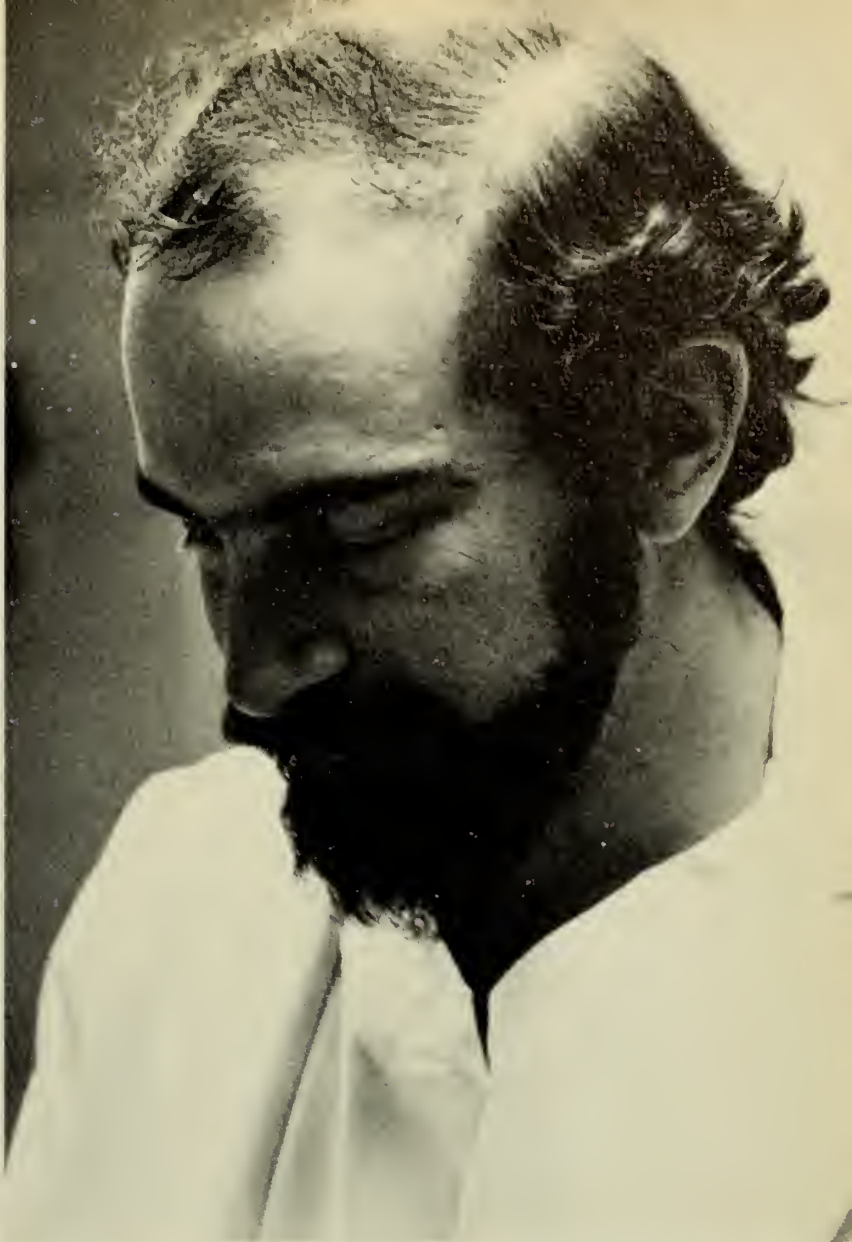


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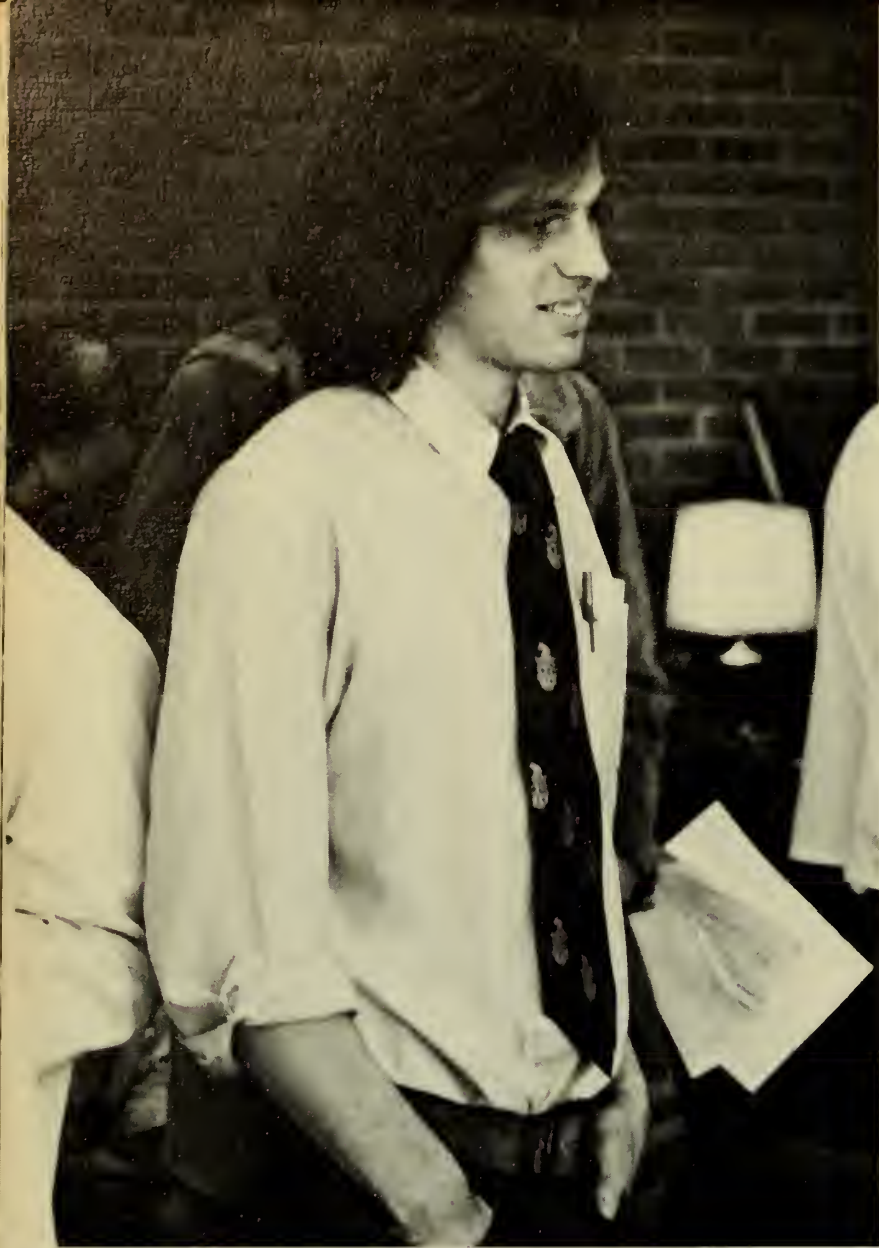


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Northwestern University Hospital,
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Monmouth Medical Center
Long Beach, New Jersey
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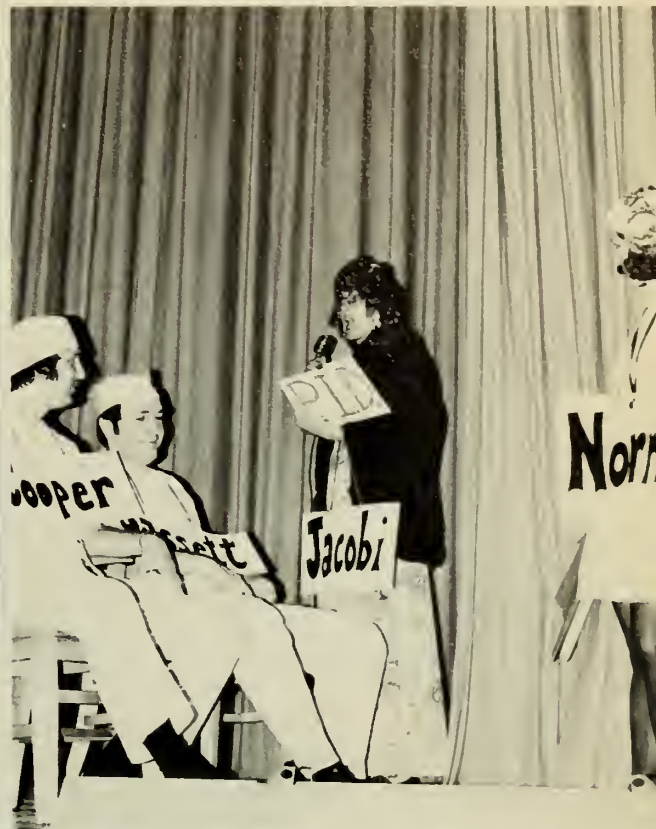


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Columbia University Dental School

University of Michigan
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192

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Philadelphia, Pa.

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Ursinus College, B.S.
College of Osteopathic Medicine
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Abington Memorial Hospital,
Abington, Pa.
Surgery

Poetic License Class of 1975

PSYCHODELICATESSAN

M is for the manias and depressions of this schooling.
 E is for my Ego that they're usually overruling.
 D is for the darn depressions of a loused up quiz.
 I is for the Id rewards that I sorely miss.
 C is for compulsiveness that got me here this far.
 A is for anxiety that makes me study more.
 L is for the libido this cloistered life removes.

 S is for the superego that this work approves.
 T is for the transference that helps me here survive.
 U is for unconscious drive that's kicking and alive.
 D is for defenses, that I'm always mending.
 E is for the energy, that I'm always spending.
 N is for neuroses that med school's proudly making.
 T is for the thorazine that I'm finally taking.
 Put them all together, they spell a true amazement
 That students here can make it through, without a type of crazement.
 Put it all together, despite this med school's processes.
 We'll all be doctors bye-n-bye, without any psychosises.

Homo Genus

NECROSIS

The most serious effect on the composition of a sophomore class is necrosis, which may be of the body as a whole (passing to Junior year) or of certain students (not passing). Necrosis is recognizable by the changes that passed students undergo after ceasing Sophomoreship. The earliest change seen grossly appears as the white coat. Most investigators have, however, also identified ultrastructural alterations such as the appearance of stethoscope and percussion hammer. Whether or not *de novo* release of new enzymes in the brain is responsible for initiating the studental changes leading to juniorship is not settled.

With no apologies to Baby Anderson, Homo genus

ODE TO A TURKEY

by Hugh Know Who . . .

Oh valiant turkey, we owe thee Thanksgiving,
 for through your brave efforts in peace we are living.
 You defended our land in so many wars,
 and now you seek homage at our V.A. doors.
 You come in with complaints of all sorts of diseases
 like one day's constipation and paroxysms of sneezes.
 You are writhing in pain as if in sickle cell crisis,
 when all you have is a bunion and onycholysis.
 And so to all you D.T.'s malingerers, and occasional crocks,
 to you losers, and boozers, and heroin De-tox,
 All we ask is that you prostrate and crawl,
 to the nearest exit so we don't see you bawl,
 'Cause you ain't getting admitted, oh turkey, that's all!

Mother Loose Rhymes

What are teachers made of, made of?
 What are teachers made of?
 Some notes and a slide
 A good bit of pride
 And that's what teachers are made of.

What are med students made of, made of?
 What are med students made of?
 A memory, some knowledge
 A degree from some college
 And that's what med students are made of.

THE TALE OF POLLY PEPTIDE

Polly Peptide gazed somberly at her mirror image. "What an enantiomorph", she exclaimed. "With this globular configuration, I'll never get coupled!" Thus catalyzed, young Polly actively transported herself to the local fraction of reduction reactants. There, through a complex series of reactions, involving intensive dehydrogenation, and daily rotations of anomeric carbons, Polly finally modified her active sites achieving esterific mutarotation. What a conformation!

As the newly synthesized Polly was trypsin home, she speculated on the primary sequence of events likely to unfold now that she was so symmetrical. Being thus precipitated, Polly failed to code for a steep electrochemical gradient, and plunged amino-end first into a nucleotide pool. A super-saturated Polly emerged from the gel-like matrix, diffused through and through. Observing her state of entropy, she decided to de-oxidize behind a cluster of cytochromes, in order to let her elementary particles dehydrate. Removing one residue at a time, she proceeded toward her minimal free energy state. ALAS! Poor young Polly was not aware that her entire reduction was being scrutinized by none other than pH - a demented enzyme who was known to be a very base character. His ions devoured her ultra-structure passing from her macromolecules to her inner compartment, as he concentrated on her kinetics.

Hearing a vulgar hypothesis behind her, Polly turned and saw pH approaching with his uncoupling agent extrapolated. She could see at once that he was a denatured sort and suspected he was under the influence of a non-competitive inhibitor. "Oh, sir", Polly pleaded, "Keep away from me, for I am but a young protein and still birefringent"; her attempts at repression, however, were to no avail for pH was preceding towards her with maximal velocity, determined to break her linkages. Poor Polly was inert against his mechanism of action. Her birefringence soon would be gone forever.

What a degradation! pH metabolized her in catabolic sequences, rupturing her miniscus, and leaving her a multiply conjugated protein.

When Polly arrived home that evening, she spontaneously induced an isotopic tracer to isolate pH. The cunning villian, however, had dynamically escaped the steady state, rapidly reaching a new equilibrium.

After missing a Krebs cycle, Polly knew she was to be a precursor. Seeking to avoid detection, she migrated to a closed system where she could undergo her transformation in vitro. Ultimately, Polly generated a tiny, but aliphatic peptide, whom she passively shunted to the Golgi complex never to see again.

The moral of this tragic tale is: beware - for a rise in pH can be a titrating experience.

The 1975 Iatrian Extends Thanks . . .

Thanks to the following Alumnae
for contributing historical data:

*Class of 1886: Jessica Royce Carleton
*Class of 1901: Frances Bartlett Tyson
Class of 1903: Elizabeth Bausman Bricker
Class of 1904: Rena May Heilman Lindsay
Class of 1905: Abbie Mabel O'Keefe
Class of 1906: Esther Marr Weyl
Class of 1908: Helen Dobson Denniston
Class of 1917: Frieda Baumann
Class of 1926: Jean Gowing
Class of 1944: Selma Kramer
Class of 1945: Mary Bagan Dratman
Class of 1947: E. Cooper Bell
Class of 1973: Darlene J. Goldstein
Past President: Marion S. Fay

*Via their children

Many thanks to these people
for all their support:

Dagmara Bastiks — Photography
Dr. Beasley — Fresh. Yr. Advisor
Pat Bell — Bookkeeping
Jim Benes — Photography
Sue Benes — Editor, Finances, History, Photography
Priscilla Benner — Mailing, History, Pediatrics
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Dr. Mansukhani — Soph. Yr. Advisor
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Liz Rock — Data
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Joan Traver — Bookkeeping
Evelyn Weissman — History, Obstetrics, Gyne.
Nina Woodside, M.D. — CWIM

Three A.M. Soul

In front of the hospital's midnight face
A figure shuffles with lonely grace,
And only a fraction of cloudy light
Catches the outline of coat of white.

Away from the corridor's kernel of light,
Away from the dying, and pain's sore blight,
The figure slowly fades in the night.
It seems to have so far to go.

Face with caring, and not with years, worn
From comforting dying, and welcoming born;
A far too short respite in wee of the morn.
It may be someone you know.

It heads to an old house where cold lights still burn,
For there is still more, still much more to learn
Before back to duty it must return
And try to battle Disease's mystery;

And face up to losses and hope for the gain,
The healing, the helping the sick and the lame,
The dreading, the fighting the sternal pain,
It's the lonely, the student M.D.

Guard her, Oh stars; defend her please
From nights haunting dangers that lurk behind trees.
Give her the strong heart to handle the caring
For the old, the hurting, the child-bearing.

WE MISS THE FOLLOWING FRIENDS . . .

Maria Allo	Marilyn Maiorca
Gail Bobal	Carole Rutner
Maria Dennison	Merrill Silton
Perry Faithorn	Diana Trusky
Dee Hansen	Gwen Wagner
Brenda Hoffman	Mary Wolak

IN MEMORIAM

DEBORAH SCHEUB (1972)
SUSAN MELLEN (1973)
DEBORAH SCHNALL (1975)
MISS ANNE MORRISSEY
DR. SHUMAN



ALPHA OMEGA ALPHA

DELTA CHAPTER 1934

PRESIDENT Joanne Jepson, M.D.C.M.
President-Elect Elizabeth Labovitz, M.D.
Secretary-Treas. Walter Rubin, M.D.
Councillor June Klinghoffer, M.D.

A.O.A. was founded in 1902 by William Webster Root and five other medical students in Chicago. Medical education in the United States at that time was inconsistent; the faculties and facilities of the 150 schools were variously sponsored and uncontrolled. Of the nearly 25,000 medical students not more than 15% held baccalaureate degrees, the remainder only holding high school diplomas or broadly interpreted "equivalents" for matriculation. The medical school curricula were mostly 3-year lecture courses with some schools providing occasional supplemental bedside and lab demonstrations.

The six founding students organized with no faculty consultation to protest against "a condition which associated the name 'medical student' with rowdiness, boorishness, immorality and low education ideals," to foster honesty and formulate higher ideals for scholastic achievement. An item about the new fraternity in J.A.M.A., Sep-

tember 27, 1902, compared it with Phi Beta Kappa of undergraduate schools. The Society quickly grew in esteem and now includes about 100 active chapters in the United States and Canada.

"Although scholastic excellence is required for membership, the qualities of integrity, capacity for leadership, compassion and fairness in dealing with one's colleagues are reckoned to be of equal significance." In addition to selecting student members, each chapter may elect to membership one faculty member annually. The aims of the Society are to promote scholarship and research, to encourage high standards and conduct and to recognize high attainment in medical science, practice and related fields.

CLASS OF 1975:

JUNIOR: Michele Koppelman
Barbara Murphy
SENIOR: Janet Amico
Frank Barch
Susan Benes
Leigh Donowitz
Mib Matejczyk
Madeline Mitchell
Judith Murphy
Mary Simmonds
Cheryl Stewart
FACULTY: Mary Ellen Hartman

Our M.C.P. chapter carries out these goals by sponsoring a research paper contest each spring for students in all 4 years and by sponsoring a speaker of general interest. Winners of the 1975 contest were Michael Cummings, II (The Role of Neurotransmitters in Hepatic Coma), Edward Cohen, IV (Taurine Changes with Age in the Eye), Alan Schindler, II (A Conceptual Background for the Application of General Systems Theory to Psychiatry), Sue Benes, IV (Effect of Radiation on the Eye) and Marsha Jacksteit, II (Chromaffin Vesicles in Altered Thyroid States of the Rat). The A.O.A. Lecturer was Donald Louria, M.D., who spoke on "The Potential for Mind Control in American Society," a stimulating philosophical and ethical issue in 1975.

MOTTO: To be worthy to serve the suffering

CONGRATULATIONS TO THE CLASS OF 1975

**The Alumnae Association
of the
Woman's Medical College
of Pennsylvania**

**Warmly Welcomes You
The 123rd Graduating Class
Into Active Membership
on the 125th Anniversary of the College**

Best Wishes to Each of You



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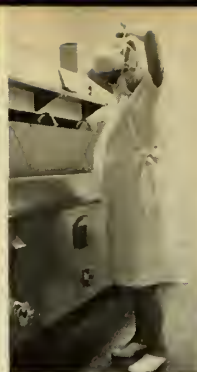
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A beautifully produced volume, which should prove very useful to all students of the CNS —David Bodian, Johns Hopkins University School of Medicine

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Editors' Thoughts

We hope you find between the lines of this volume our pride, loyalty, and gratitude to our college. We are proud of her continuing tradition of preparing women for the practice of medicine, of her willingness to listen to members of her community in a democratic way rarely found within "the Establishment of Academic Medicine," and of her ability to make wide policy changes while respecting her original missions.

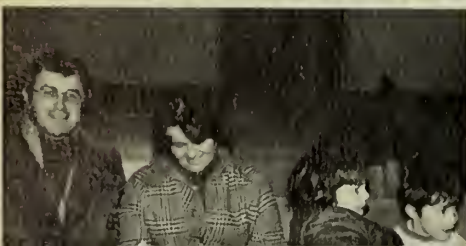
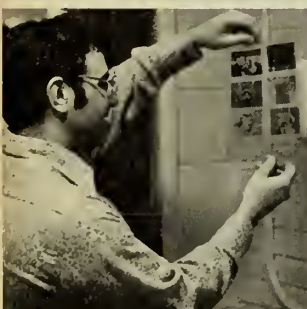
We will always feel a warm loyalty to those who helped us to achieve our personal goals and to enjoy our years here together.

And we are grateful for the opportunity this college has afforded us to study in a small, personally-oriented setting that respects high standards and enables us to be successfully competitive members of the profession when we leave.

We are sad about our college's short comings. These include a strange inbred paralyzing paranoia and lack of positive self-image which pervades faculty, students and alums and prevents them from communicating effectively with one another, from growing and changing, from seeking leadership positions or high caliber training programs and from enhancing the reputation of the college.

Second, we believe that the college "commitment to women" is half-hearted. It is true that a certain number of reserved spots for women guarantees a certain amount of opportunity for them. However, unless there is guaranteed financial and legally-responsible underwriting of supportive student services by both the college and the alums jointly, there will not be a significant cross-section of women from different walks of life in the ranks of the confident and successful graduates. These services are in the areas of flexible programming, financial aid, child care, safety, housing, parking, psychological and psychiatric support, and activities. The argument that support for four years is comparable to a lifetime of "handouts" is not valid. Students should be able to expend more energy on study and less on fretting. Satisfaction with the status quo won't help. Aggressive action, personal involvement and money will.

Loyally yours,
Sue Benes
Steve DeArmond
Kathy McHale









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